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FROM NEW ZEALAND

TO

LAKE MICHIGAN.

BY

W. T. LOCKE TRAVERS, F.L.S.,

AUTHOR OF

"Picturesque New Zealand," "The Life and Times of Te Rauparaha, Chief of Ngatitoa," etc., etc.

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To

CHARLES JOHNSON PHARAZYN, Esq.,

LATE M.L.C. OF NEW ZEALAND,

THIS WORK IS DEDICATED,

AS A

TRIFLING RECOGNITION

OF A

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PREFACE.

Some of my readers may ask why this work contains so little of my personal experiences, during my journey through that part of America which is referred to in it, and why it is silent as to the impressions I may have formed of the character, habits and customs of the people with whom I mingled? My answer is, that my travelling experiences were of the tamest kind, and that my intercourse with the limited number of persons with whom I came in contact, was too slight to justify the expression of any positive opinions respecting them. The chief object of my work is to show that the extraordinary rapidity with which the enormous area described in it — equalling all Europe in size — was colonized, was due to the discovery, in 1847, of some "glittering particles of gold" during the prosecution of an industrial work, for, practically, the then only white settler in north California. It is intended also, by giving, on the one hand, an account of the physical conditions which obtained within this immense territory prior to and at the time of that discovery, and of the interesting and adventurous explorations through which

those conditions were made known, and on the other hand, an account of the wonderful changes brought about by the sudden intrusion into it of a vigorous civilized people, to afford my readers some idea of the impulse given to western settlement, by that discovery, an impulse which was soon afterwards strongly felt both in Australia and New Zealand. My work has been written in the belief, that this course would be far more interesting and instructive than namby-pamby experiences of travel, or crude observations upon the character, habits and manners of the people of the Western States.

WM. THOS. LOCKE TRAVERS.

WELLINGTON,
AUGUST 1889.

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CHAPTER I.

THE PACIFIC—TUTUILA AND ITS ISLANDERS—PALMYRA ATOLL—WRECK OF THE HENRY JAMES—RESCUE OF THE CREW—OAHU AND ITS SCENERY—HONOLULU.

IN 1888 I found it necessary to visit England, and as I had never been in America, I determined to proceed to San Francisco, and from thence across the Continent to New York, en route for Liverpool. I left Auckland on the 22nd May in the steamship Mariposa, one of the three vessels chartered by the Union Steam Shipping Company of New Zealand, for the purposes of the subsidized Mail Service between Australia, New Zealand and America. The Mariposa is a fine ship of 3000 tons burthen, and, with one exception, is very well fitted. The exception, however, is an important one, and interfered seriously with the comfort of the saloon passengers during the voyage. The fact was, that the doors of the staterooms afforded the only means of ventilating them, and as almost the whole voyage extends through tropical regions, the heat at night, especially in the upper berths, was almost insufferable. Moreover there were no punkhas in the saloon, which, independently of other causes, made

meal times periods of acute suffering. The bed and table linen were scanty and wretched in quality, and appeared to have been picked up at some rag fair. The food, though abundant of its kind, was mucky and badly served, whilst, in disagreeable contrast to the order and cleanliness which characterize this class of service in American Hotels, the stewards were ill dressed and dirty, both in person and ways. The officers were evidently high class seamen, and the discipline of the ship was carried out with perfect quietness and order. Looking to this, it appeared strange that the table and stewards' service should have been so inferior in character, but I was given to understand that these departments were under the exclusive control of the chief steward, with whom the Commander was not entitled to interfere, except in matters directly involving the discipline of the ship.

We had an unusually large number of saloon passengers, comprising English and American globe-trotters, New Zealand and Australian settlers proceeding to visit America or the old country, and the usual complement of persons engaged in trade. Fortunately there was not a single *contre-temps* during the voyage, and, what with concerts and the ordinary amusements of ship-board, the time passed agreeably enough. The first land made after leaving Auckland, was the island of Tutuila, one of the Navigator Group.

We lay in close vicinity to the island for nearly an hour in order to take in mails from Samoa, which are usually forwarded to meet the mail steamers during their voyage to and from San Francisco. In common with the rest of the Group, Tutuila is entirely of volcanic origin. It is very mountainous and broken, and is covered with dense tropical vegetation extending to the water's edge. The inhabitants appear to be quite uncivilized in our acceptation of the term. Large numbers of them came off to the ship in their canoes, bringing for sale rudely carved implements, palm leaf fans, and indigenous flowers and fruits, the latter consisting chiefly of cocoanuts and bananas. As the canoes approached we were struck with the appearance of the upper parts of the heads of the occupants, which were all pure white. When they reached the ship, we found this was owing to the hair being plastered with lime made from coral rock. To account for this practice, we were informed that the daughter of one of the principal chiefs of Samoa had, a few years previously, visited some relatives at Tutuila, who then saw her for the first time, and were struck with the beauty of her hair, which was of a light red color. Anxious to improve the appearance of their own hair, they adopted the plan above referred to under the advice of an European visitor to the Island, who had assured them that the application of lime would bring about

the desired change of color. It had not produced that result in any of the persons who came under my notice, and I am inclined to think that the habit in question was an old one, originally adopted for the sake of cleanliness, and to mitigate, in some degree, the irritation due to the plague of flies which infest the island, rather than with a view to personal adornment. In physical aspect the men were remarkably fine and well made. They were profusely tatooed from the waist to below the knees, in very fine lines and patterns, so as to give them, at a distance, the appearance of wearing some form of dark close-fitting clothing. With the exception, however, of a few leaves and flowers, both sexes were practically naked, and were as much at home in the water as out of it.

I observed that most of the persons of both sexes who visited the ship, were marked with scars on various parts of the body, apparently from healed superficial ulcers, which led me to suppose that they suffer from cutaneous diseases, due in all probability to their living exclusively on fish and the ordinary edible vegetable products of tropical islands. They are nominally Christians, and are occasionally induced to engage in work for the missionaries and traders, but the facility with which they can obtain food sufficient for their wants, makes them idle and lacking in perseverance.

The island is almost entirely composed of high steep mountains, reaching in several places an altitude of 3000 feet and upwards. These mountains are broken and picturesque in outline, and support a dense vegetation extending to the water's edge, amongst which the cocoanut and other forms of palm are conspicuous. The population is said to be considerable, numbering, as I understood, several thousand persons. Their dwellings are mainly constructed of materials derived from the cocoanut palm, and are distributed along the line of the sea shore, nestled amongst groves of the cocoa and banana. The chief trade productions of Tutuila are copra, cocoanut fibre, and small quantities of cotton, coffee and béche de mer, which the inhabitants dispose of to the German company that succeeded Messrs. Godeffroi and Sons, of Hamburg, in the Pacific Trade; but I was informed by a passenger who joined our ship at the island, that pearls, of which he had obtained a number from one of the Chiefs, had recently been discovered, and that although the extent of the probable supply had not yet been sufficiently estimated, there was some hope that it would prove to be considerable. Tutuila is about seventeen miles in length by five in width, and is almost cut in two by the harbour of Pago-pago, one of the finest in the South Pacific. We did not enter the harbour, and I am therefore unable to make any observations upon it, but

it seems strange that it has not yet attracted much attention on the part of the naval powers, which are now so hotly disputing the possession of Stations in the Pacific.

Amongst the letters from Samoa, our Commander received information from the American Consul there, corroborated by the officer in command of one of the American war ships at Apia, that an English ship, bound from Newcastle in New South Wales to San Francisco with coals, had been wrecked upon a reef to the westward of Palmyra, an Atoll lying some 1400 miles to the Northward of Samoa. It was suggested in these communications, that he should proceed to the relief of the passengers and crew, who had taken refuge on the Atoll. As this lay close to our own course, he at once determined to act upon this suggestion. After leaving Tutuila the voyage continued to be without incident until we sighted the Atoll, which we did about eleven o'clock in the morning of the 29th of May. As may naturally be supposed, the utmost interest was excited throughout the ship as we neared the Atoll, not only by the expectation of giving relief to the shipwrecked people, but also by the opportunity afforded of a sight of one of those remarkable formations to which the above name has been given. Nor was expectation in either respect at all disappointed. Gradually, as we neared the island, a faint, peculiar line appeared on the horizon, which, on closer approach,

assumed the appearance of a grove of trees rising directly from the waters of the ocean, but masked, in its lower part by a line of flashing light, produced, as we found on nearer approach, by the waves breaking upon an outlying coral reef. The surface of the Atoll is in no part more than seven or eight feet above that of the surrounding waters, and the space between the latter and the internal lagoon rarely exceeds fifty or sixty yards in width, and is often much less. The surface consists of decomposed coral, and is covered with cocoa-nut palms and other plants whose seeds are capable of germinating notwithstanding long carriage by sea water. To those who take more than a mere passing interest in the formation of coral islands, I recommend a perusal of the interesting theory propounded on the subject by the late Mr. Darwin, and the writings and suggestions of subsequent observers (many of which are to be found in the columns of "Nature"), which appear to throw considerable doubt upon the soundness of his conclusions. Our approach had been joyfully observed from the Atoll, and we saw the shipwrecked people moving along the shore line, and making preparations to come off to us in the boats with which they had reached it from the scene of the wreck. The following account of the wreck, and of their rescue was published after our arrival in San Francisco, and is quite correct.

"We are indebted to the Secretary of the Post Office for an account of the wreck of the British barque Henry James, whose crew and passengers were rescued by the Mariposa, which left Auckland on the 21st ult., reached Tutuila on the 26th, and Honolulu on the 1st inst. The reports are from the mail agent :—While lying off Tutuila, Captain Hayward received a private letter from Lieut. Cressap, of the U.S. steamer Mohican, stating that a boat had arrived at Apia containing the first officer and four men of the British barque Henry James, and reported the loss of that vessel on a reef about 36 miles north-west of Palmyra Island. They also stated that the rest of the crew and passengers had taken refuge on the island. A schooner had been chartered to proceed to their relief, but upon maturely considering the situation, the distance that the vessel must cover (about 1400 miles), the adverse winds and currents which she would probably meet, and lastly, the destitute and suffering condition of the castaways, Captain Hayward deemed it his duty to proceed to their rescue. The island was reached at 3.5 p.m., 29th May, and the shipwrecked crew were soon recognised launching their boat. A boat was immediately lowered from the Mariposa, under the charge of the Chief Officer, Mr. Hart, and upon meeting the boat from the shore, relieved them of a portion of their load and returned to the ship, the other boat returning

to the shore for the rest of the ship's company, who were out of call on the other side of the island. By 6.15 p.m. all were safely on board, and the Mariposa proceeded on her course. Liberal donations of clothes and money flowed in on the outcasts, and they were soon made comfortable. No serious sickness had occurred amongst them, although the women and children were beginning to suffer from lack of food and the necessaries of life.

"Captain Lattimore reports as follows:—The Henry James was an iron barque, of 945 tons register, built at Glasgow in 1882, bound from Newcastle, New South Wales, with a cargo of coal consigned to Balfour, Guthrie and Co., San Francisco, and owned by the North British Ship Company, of Glasgow. She ran on a reef thirty-five miles northwest of Palmyra at 10 p.m. on the 16th April last, while going about five knots, in a smooth sea. Two boats were got ready as soon as possible, and ladies and children lowered first, over the stern, as the sea was breaking along the main deck. All hands and some few provisions being safely in the boats, they stood by the ship until daylight. The captain, in leaving the ship last, had a narrow escape from drowning through falling into the sea. Finding it impossible to get on board the ship again, owing to the heavy surf making a clean breach fore and aft, sail was made on the boats at 7 a.m., and

Palmyra Island reached at 5 p.m., a landing being effected at 7 p.m., having had heavy showers, and shipping many seas in the interim. They found on the island the remains of six huts, but no inhabitants; also a quantity of firewood, which had been cut and piled probably by some previously shipwrecked crew. The ladies and children were made as comfortable as possible, a fire lighted, and some mutton and biscuits formed the first meal. No clothing or other effects were saved except a pair of blankets, and they were thoroughly drenched. On Saturday, 21st April, a boat in charge of the first mate with the boatswain and three seamen, who volunteered, left the island at noon for Samoa, a distance of 1400 miles, which was safely completed in 19 days. The provisions were seven pounds of bread, (one half of the entire stock), one six pound tin of mutton, two bottles of whisky, one pound of cheese, 260 cocoanuts, and ten gallons of water. On the 24th of April, at 4 a.m., the remaining boat was launched from the beach, and headed for the wreck, which was reached at 10 a.m. The ship was settling down, and, as the sea was breaking over her fore and aft, it was impossible to board her, and the attempt was abandoned for good. The boat returned to the island at ten the next morning, During the six weeks' stay on the island, with the exception of diarrhœa, all hands enjoyed fairly good

health. Water was found on a small island about two miles from the camp. Cocoanuts were found in abundance, and these, with eels,* birds, land crabs, and pepper grass, formed their diet. On the 29th May, at 2 p.m. a steamer was sighted, which proved to be the O.S.S. Co.'s steamer Mariposa. A boat was lowered from the steamer in charge of the first officer, and by 6 p.m. they were all safely on board."

A committee formed to distribute the relief fund referred to in the above account, made careful enquiry, not only into the relative losses and wants of the shipwrecked people, but also into their conduct during their stay on the island. This brought out the fact, that one of the seamen had frequently given trouble and had stolen and consumed some tins of preserved milk, which had been set apart from the salvage for the exclusive use of the young children. For these reasons the committee excluded him from participation in the fund, but he nevertheless found sympathisers, led by a strong-minded American lady, with the result that his misconduct was rewarded with a larger subscription than had fallen to the share of any of those amongst whom the general relief fund was distributed, and he afterwards exhibited a considerable amount of insolence towards those who had sought to punish him for his misconduct.

* The eels proved to have been water-snakes.

On the evening of the first June, we arrived at Honolulu, the voyage from Palmyra having been without event of any kind. The night was too dark to observe the harbour on our way to the wharf, but as soon as the vessel was moored, a large number of the passengers landed. The scenes presented in the town were in the highest degree picturesque and beautiful. Almost all the houses beyond the principal business street have gardens attached to them, filled with magnificent palms and other tropical plants, all growing with a luxuriance and beauty only faintly imitated in European conservatories. As Honolulu is everywhere lighted by the electric light, the effects produced were lovely in the extreme, calling to mind the brilliant scenic exhibitions in the grand extravaganzas and ballets at the Metropolitan theatres at home. I wandered about for hours, and felt utterly disinclined to leave these exquisite scenes and return to the ship. But even there I found much interest in observing the natives who thronged the wharf, some engaged in discharging and re-loading the ship, others in carrying on trade in curiosities, flowers and fruit with the passengers, and others again, in picturesque costume listlessly looking on. On the following morning I visited the principal public buildings in the town, exclusive of the palace, to which I could not obtain admission, though I managed a walk through the grounds by which it is

surrounded. The Legislative and Government departmental buildings are handsome and well arranged. In the chamber of the nobles are portraits of several of the Kings and Royal Princes, all pure-bred Sandwich Islanders. The Legislative body consists partly of half-caste and partly of full-blood natives, of whom some are nominated for life by the King and the remainder are elected, both sitting in a single chamber.

The general administration of the affairs of government is, however, entirely in the hands of white people, chiefly Americans, and the time is evidently not far distant, when the aboriginal element will cease to have any power or occupy any position of importance in the islands. Large numbers of Chinese and Japanese are already settled there, and on the day preceding our arrival, a steamship had come in from Japan with nearly a thousand emigrants. Nearly all the waiters and other servants at the hotels and in private establishments belong to these nationalities, besides which large numbers of them are engaged in farm and garden cultivation. The town is generally well laid out, and its principal shops contain every kind of European, American and other goods, at reasonable prices. The residences of the wealthier people, are situated partly along the line of a handsome street named Nuuanu Terrace, which runs nearly parallel with the general trend of the town, but away from its business parts, and

partly on its outskirts. They are generally well built, and in many instances are remarkably beautiful, whilst all are surrounded by gardens and plantations comprising varieties of palms and luxuriant flowering plants. Unfortunately a portion of the town is practically given up to the Chinese, and, as usual in places where these people congregate, is characterised by a filth and squalor in painful contrast with the generally respectable and cleanly appearance of the remainder. The surroundings of Honolulu are extremely beautiful. The island of Oahu on which it stands, (in common with the entire Hawaiian group) is of purely volcanic origin, and the great lava beds, ejected from many large vents, have been cut down by streams of water into narrow valleys, bounded by lines of high precipitous hills, presenting every variety of crag and peak, of gorge and precipice the whole being covered with dense vegetation kept rich and luxuriant by the constant moisture which characterizes the windward side of all the islands. I drove up one of these valleys to the Pali, a place of much interest in the history of the wars of the Sandwich Islanders. The valley is narrow and ends abruptly in a steep and broken face of rock, which rises even more precipitously on either hand, to the height of 1000 feet and upwards. The view from the head of the pass is remarkably fine, both shores of the island being visible. It is said that many years ago, the

whole number of a great native war party was driven over this point and killed by the fall, and that their bones still lie mouldering below, but of these ghastly remains I saw nothing. A road has now been cut down the rock face, upon which I saw trains of ponies, some loaded with produce for the town markets, and others taking home the supplies which their owners obtained in exchange from the storekeepers. The valley contains many well cultivated dairy farms, which yield an abundance of excellent cream, milk and butter to the townspeople, and is also the site of the works by which the town is supplied with water. There is an idea prevalent amongst the inhabitants of temperate climates, that cows, under the Torrid Zone, do not yield rich milk. Humboldt refers to this in his personal narrative, and remarks that, during an excursion through the vast plains of Calobozo (one of the hottest parts of Venezuela), which were covered with grasses and herbaceous sensitive plants, he became convinced, that the ruminating animals of Europe become perfectly habituated to the hottest climates, provided they find water and good nourishment. He found the milk produced in the provinces of New Andelusia, Barcelona and Venezuela, to be excellent, and the butter richer and better flavored than that produced on the ridge of the Andes, enjoying in no season a temperature higher than the Pyrenees or the mountains of Estremadura.

I was amused at seeing, growing as roadside weeds, even in the very ditches, tropical flowering plants and ferns, specimens of which I formerly cultivated in my own greenhouses at a cost of from one to two guineas each. Cocoanuts, bananas, guavas, oranges and mangoes are extensively cultivated, and are abundant and excellent, although the latter fruit is only agreeable to those who have acquired a taste for it, the flavour having a suspicion of turpentine, which, at first, is a little trying. In other respects it is rich and delicious. I tried the Avocado pear, another tropical fruit, which, however, proved to be a bad imitation of the mango. Although the climate appears to be well adapted for the growth of the bread-fruit, I did not see any on the island. Strawberries were abundant and well-flavored, and satisfied me that the fruits indigenous to tropical countries are not, as a rule, to be compared in delicacy and richness of flavour, to those of temperate climates.

After returning from the Pali, I drove to Kapiolani Park. The drive was very interesting, and the plantations along the road extremely beautiful, the gardens being bright with oleanders, lantanas, hibiscus, bougainvilleas, and other handsome shrubs and creepers, whilst the air was heavy with the perfume of gardenias, roses, and a host of other richly-scented plants. I visited Queen Emma's Hospital, and several of the schools, churches, and other public institutions. The

buildings are generally good, and the institutions well conducted. It is, indeed, the boast of Honolulu that nearly the whole of the rising generation can read and write, and I was informed that nearly £10,000 a year is spent in education in Oahu alone. I found that much indignation had recently been excited by a statement made by Mr. Ballou, an American writer who had not long before visited the islands, to the effect, that so short a time as fifty or sixty years ago, the natives always ate the prisoners taken in battle, and often made war for the sole purpose of securing prisoners to be roasted and eaten. These statements are absolutely denied by those who are most conversant with the history of the native race, although it is admitted that, before 1819, when King Kamehameha II. had insisted on the adoption of the habits of foreign civilization, the natives were, as in the case of the people of Tahiti, bound in a gross and cruel idolatry, and offered human sacrifices to their gods. It appears, too, that the heart and liver of the sacrifice were eaten as part of the religious rite, and that this was also sometimes done in the case of foes of distinction, killed in battle, under the idea that those who partook of them would acquire the valour and endurance of the dead man. But it is strenuously denied that cannibalism, such as that indulged in by the natives of Fiji and New Zealand, for example, was ever practised by

the Sandwich Islanders. At present, at all events, the natives are a well conducted and industrious people, though seemingly destined to die out, as the result of contact with European civilization, and the adoption of the habits and vices which it induces. It will be remembered that Captain Cook estimated the population of the group at 400,000 persons, which must, however, have been excessive. In 1823 the American missionaries, after careful enquiry, fixed the number of the native people at 142,000, but the last census gives the total as somewhat under 45,000. The men, too, are said to be far more numerous than the women, and I was informed that not more than half the married women bear children. One could almost have better understood this degree of barrenness before the introduction of civilized habits, for, until that took place, female virtue was absolutely unknown, the women indulging in indiscriminate intercourse with the men. But Darwin has pointed out that wild animals become sterile under domestication, and it is not at all improbable that so great a change in the conditions of life as that which is induced when an uncivilized race is brought under civilized control, may produce a similar result, especially when, in addition to other operative causes, they become subject to the influence of foreign diseases. This, however, is a large question, upon which I have not sufficient material to dilate.

The climate of the islands is in no degree unsuited to Europeans. The range of temperature does not exceed 20deg. of Fahrenheit, the mean temperature of the cooler months being 62deg., and of the hotter, 80deg. They are never visited by hurricanes, but during the cool seasons the rain-fall is nearly 80 inches, and strong winds prevail. The indigenous natural productions were very limited, but a large number of the fruits of other tropical and semi-tropical countries have been introduced, and grow and produce luxuriantly. Cattle and sheep have thriven greatly, and the produce of wool, hides and tallow, is now considerable and increasing. The present population is a very mixed one, comprising pure and half-caste natives, English, Americans from the United States, French, Germans, Portuguese, Chinese, Japanese, and people of many other nationalities, though in smaller numbers than those specially enumerated. The total number, according to the census of 1878, was about 58,000, of which the natives and half-castes were 48,500, Chinese 5,900, Americans 1,280, English 890, Portuguese 430, Germans 275, French 80, and other nationalities 666. I was informed, however, that the latest census showed that the natives and half-castes have diminished to 45,000, although the population generally had largely increased. Efforts have been made to check the influx of Chinese, but as yet without any satisfactory result. No similar

objection is made to the Japanese, whose habits are cleanly and who do not bring with them diseases of the same class as those which affect the former.

The trade and commerce of the islands are on a sound footing. The imports, which, in 1845, amounted to $547,000 only, had increased to $4,879,000 in 1886, and the exports, which, in 1845, were $270,000, reached $10,566,000 in 1886. The number of vessels entered inwards and outwards at the various ports during the year 1886, with their respective tonnages, were as follows:—American 220, 128,224 tons; Hawaiian 29, 40,242 tons; British 38, 39,435 tons; French 8, 5,551 tons; other nationalities 7, 6,206 tons. The exports comprise sugar, rice, coffee, wool, hides, tallow, arrow-root, maize, copra, bèche de mer, and large quantities of fruit, such as oranges, bananas, cocoanuts, mangoes, custard apples, guavas, etc., the largest part of which are sent to San Francisco. We took with us, to that port, nearly fifty tons of bananas alone, and I was much interested in observing the number of centipedes, beetles and their larvæ, and the larvæ and pupæ of moths and other specimens of insect life, which were thus being introduced into Western America.

We left Honolulu about one o'clock in the afternoon of the 1st June, bound for San Francisco, and arrived there on the 9th without incident of any kind.

To those who look at an ordinary chart of the Pacific, it may appear strange, that it can be traversed in many directions without falling in with any land. And yet, but for the necessity of calling at Tutuila and Honolulu, we should not, in a direct course from Auckland to San Francisco, have seen any land whatever, although the distance is nearly 6000 miles, and although it would appear, looking at the chart, that we should have had to pass close to many groups of islands. Some distinguished voyager in the Pacific before the days of ocean steam navigation, observed that he had formed no adequate conception of the extent of the western coast line of America, until he had sailed from Cape Horn to Alaska in a vessel of fair speed, which took four months in accomplishing the voyage. In like manner, I had formed only a faint idea of the extent of the Pacific and of the distances which separated the various groups of islands shown on the charts, until I had taken the voyage from Auckland to San Francisco, but I can now understand how much chance had to do with the discovery of even such comparatively large tracts as the Islands of New Zealand. This, too, explains the absence of almost every form of life on the line of our voyage, for, except flying fish and a few birds seen when nearing Tutuila and the Sandwich Islands, no form of life was seen. Flying fish were very numerous in places, occasionally rising, in actual shoals, in front

of the ship; but I saw none rise beyond a foot or two from the surface of the water. In the Atlantic, on the other hand, they frequently rise to the height of nine feet and drop into the chains and even upon the deck of a large ship. Their flight is certainly a true flight, for I observed that they were able to change its direction, and to follow all the undulations of the surface of the water, before dipping into it. This fish is of delicate flavor, and was the only one that I saw in the market at Honolulu, where it was abundant. I regret that I did not examine any of them in order to ascertain the size of the natatory bladder. In the Atlantic fish this, in an animal only 6½ inches long, has been found to be 3.6 inches long and 0.9 of an inch broad, containing 3½ cubic inches of air. The flight of many of those I observed in the Pacific was longer than any that I had seen in the Atlantic, which increases my regret at not having examined some of those which were offered for sale at Honolulu.

It was interesting to observe the change which gradually took place in the appearance of the night skies, as we made our northing. We gradually lost the many splendid constellations of the southern hemisphere, but it was almost a reward to renew our acquaintance with Charles' Wain and the other northern constellations which we had known in our youth. "Nothing," it has been remarked, "awakens

in the traveller a livelier remembrance of the immense distance by which he is separated from his own country, than the aspect of an unknown firmament." I felt it strange, too, to observe that my shadow, which, for nearly forty years had been pointing to the south, had changed its direction to the north, even before we had reached the Equator, a fact which, for a time, a good deal disturbed my ideas of position.

CHAPTER II.

San Francisco—New Helvetia—The Discovery of Gold at Sutter's Mill—Yerba Buena—The Present City—China Town—The Palace Hotel—Seal Rock.

The first sight of the harbour and city of San Francisco is highly interesting, especially to those who know anything of the condition of the vast tract of country which lies between the Mississippi river and the Pacific coast line, before the discovery of gold in California. It will be remembered that, until the close of the war between Mexico and the United States in 1847, that part of the above tract which comprises the present states of California, Nevada, Arizona, New Mexico and portions of the states of Utah and Colorado, was under the direct dominion of Mexico, by which it was then ceded to the United States. Up to that time the chief settlements within this great area, were Yerba Buena, which stood on part of the site of the present city of San Francisco, and had a population not exceeding 500 people; Santa Barbara and Los Angeles on the coast line, and the inland towns of Tucson, Santa Fe and Pueblo; all of which stood on the outskirts of the great desert that lies between the Sierra Nevada and the Rocky

Mountains. Portions of the country in the vicinity of these towns were occupied as cattle-ranches, carried on by Mexican proprietors, or for the benefit of the members of the Roman Catholic religious houses, (of which there were several within the territory in question), the members of which were engaged in a vain attempt to convert and civilize the Indian people in their neighbourhood, without, however, making any effort to teach them the arts and occupations of civilized life; the result being that, whilst their efforts were useful at first in mitigating the effusion of blood which was pretty constant amongst the natives, they failed to lay any solid basis for a better state of society. Indeed, these missions proved to be absolutely hostile to the progress of the Indians, for those Indians under their control progressively lost all the characteristics of independence, as a consequence of being subjected, even in the slightest actions of their domestic life, to rules which made them stupid in the effort to make them obedient. The remainder of the country was roamed over by Indian tribes, which subsisted solely on its limited natural productions and were constantly engaged in predatory warfare against each other, and against the small Mexican population, which often suffered severely from their incursions. It may easily be conceived that, under such conditions, the territory in question was not likely to make any progress in settlement or in material wealth, and we

find, in effect, that, until it had passed under the dominion of the United States, its only export was a small quantity of hides which were annually collected at the harbours along the coast. There can be no doubt, however, that the Spanish monks were aware that gold existed in considerable quantities in various parts of the area above referred to; but this fact was carefully kept from the outer world, in order to prevent the influx of foreigners which would result from its being made known, and the certain loss of influence over the Indian population which the monks would in that case sustain. And so, an enormous territory, capable, under proper cultivation and management, of yielding sustenance for millions of civilized people, and of producing nearly everything which helps the material advancement of mankind, was kept in a desert condition, solely for the purpose of fostering the vain project to which I have referred.

All this has become changed, however, as the result of the gold discovery which took place at Sutter's mill in 1847, a discovery which has not only led to the formation of a special class of people, previously unknown amongst European nations, now numbered by hundreds of thousands, who devote themselves almost exclusively to the business of gold, silver and diamond mining, and are to be found scattered throughout the gold producing regions of the Globe,

but has brought about the rapid colonization of the vast territory extending from the Mississippi to the coast line of the northern Pacific, including British Columbia and Vancouver's Island. Prior to this discovery, so small were the general gatherings of gold in both the Old and New Worlds, that the average produce had not, for many years, exceeded the annual value of £5,000,000, but this discovery and the subsequent opening of the gold mines of Australia, New Zealand and South Africa, have led to an enormous increase in its production, and to a complete change in all previously received ideas with respect to gold mining, both as an industry and as a branch of geological investigation.

A glance at a map of that part of North America which includes the country between the Mississippi and the shores of the Northern Pacific, shows, besides the Rocky Mountains, two other main chains, all converging towards their northern extremities in British Columbia, but diverging to the southward. The central chain is named the Sierra Nevada, and the western one is that which forms the outer boundary of the Sacramento and San Joaquim valleys. Between the Rocky Mountains and the Sierra Nevada lies one of the great deserts of North America, consisting, chiefly, of the extensive basin in which Salt Lake, Lake Utah, Sevier Lake, Pyramid Lake, and a host of others of lesser dimensions appear, as the remains of a once

vastly more extended water area. With the exception of the Mormon Settlements near the two first-named lakes, scarcely any part of this desert tract is as yet inhabited, except by a few miners, and others directly interested in their labours, and, as will be shown further on, the Mormon settlements themselves have only been rendered possible, by the facilities for irrigation which are afforded by the streams flowing from the neighbouring Wahsatch and Uintah Mountain Ranges.

The Sierra Nevada almost rivals the Rocky Mountains in altitude, but its ridges and summits are less broken and rugged.

The coast range presents few breaks or gaps between the sea and the valleys of the Sacramento and San Joaquim, the most important one being the outlet of the united Sacramento and San Joaquim rivers, which, by their junction, form the noble harbour of San Francisco.

The actual discovery of the gold which has been found disseminated throughout this extensive region, took place in this wise.

During the erection of a water power saw mill on Captain Sutter's property at New Helvetia, the contractor engaged in the work, observed "some glittering particles" in the "dirt" (as gold bearing gravels are technically termed by the miners), taken from the bed of the race which was being cut to supply the water

wheel. These particles proved on examination to be gold. The work people soon became aware of this discovery, the news of which also quickly spread throughout the surrounding districts and found its way to Yerba Buena, and such was the character of the reports received, that that town, and all the adjacent districts were at once emptied of their inhabitants, who flocked *en masse* to the "diggings" at New Helvetia. The supply of the precious metal proved to be enormous and widely extended, and no sooner did intelligence of the nature and extent of the discovery reach the eastern states of America and Europe, than a rush of emigrants from all nations set in towards California. This immense influx of people—comprising, too, a very mixed class,—into a practically unsettled and uncivilized country, was attended, in the first instance, with very evil results, whilst the sudden and enormous gold harvest threatened for a time to demoralize industry and throw the machinery of commerce out of gear. It was predicted by many, who were, however, soon proved to have formed erroneous opinions on the subject, that the supply of gold would speedily be exhausted, but, as a fact, every new account received from the scene of operations, showed that the range of the gold seekers was being further and further extended. "Gold," says a writer well acquainted with the development of this discovery, "was found accumulated in the beds of rivers, in the gullies of the mountains, and in the

gravels of the plains. It was found set deep in quartz or mixed with crumbling granite. It was found in digging a well at San Francisco, and then, a hundred miles off it was dropping from cliffs into the sea, and slowly settling through the sands of the shore. The searchers had to dig pits, to climb mountains, to turn rivers, to sink shafts, to run galleries, to uncover plains, to break, to crush, to roll, to shake, to wash and to amalgamate. One discovery quickly supplanted another, and one set of implements quickly yielded to another. At one time a rocking machine for separating the gold was in great demand, but before manufacturers could send out a supply, it was superseded by a cradle of ingenous construction. Then came chrushing-mills of various kinds, for pounding the auriferous quartz of Mariposa. An immense amount of machinery was sent out for this purpose, and was doubtless turned to good account ; but the earlier accounts from California spoke of discoveries which offered gold without the use of tools or machines other than the common implements for turning up the soil, for the precious metal in this case lay in a soft greasy slate, easily to be crumbled between the fingers. The slate was thickly interspersed with extremely fine particles of gold, which were separated by means of quicksilver. At a spot appropriately named Mount Ophir, fine specimens had been met with of "soft clay slate saturated with gold, in

small particles and large lumps. These treasures lay from 10 to 30 feet below the surface, so that a great deal of top dirt had to be thrown up before the slate was reached. Seven Mexicans, who made this discovery, and kept their secret eight days, made in that short time 217,000 dollars. One lump might yield three dollars, another twelve dollars, and so on. Other searchers, from a shaft twenty feet deep, obtained the soft clayey slate in buckets, and found from eight to twelve dollars worth in each bucket. This new discovery came within the limits of the 'diggings,' and fell under what was called 'placer' law, that is, every man who came might claim his thirty feet square and set to work as he pleased, without asking the landowner's leave. But if he wanted to plant mills and make expensive mining works, he had to obtain a grant of the soil." A great number of persons were soon congregated in the new diggings, and a flood of gold seemed to threaten the European market. From the great Californian field of enterprise, thirty millions of gold found their way in a few years into the commercial world, without producing any very striking or marked effect; but it was thought that, if this rate of produce continued, there must eventually be produced corresponding alterations in money matters. During the period of excitement caused by these discoveries, Australia and even New Zealand, supplied a quota of emigrants to the field of

operations, and many vessels left the ports of those colonies freighted with passengers and food supplies for the "diggings" at El Dorado. It was but little to be wondered at, therefore, that some of the men who had gained experience in gold seeking in California, should, in process of time, have found their way to Victoria and New South Wales, and ultimately to New Zealand, and should have found indications, in each of these places, of the presence of the precious metal which was afterwards produced in such enormous quantities in each of those colonies. The result was that, in 1851, an influx of gold seekers but little less great than that which occurred in California, took place to Melbourne and Sydney, followed by a further contribution, to the markets of the world, of quantities of gold nearly as large as those which had been produced in California itself.

Now, whilst it may be admitted that American enterprise would have speedily altered the condition of things which obtained on the sea-board of the North Pacific before its cession by Mexico, it is clear that the City of San Francisco owes the foundation and the maintenance of its present extent and greatness, its expanding commerce, its varied manufacturing and other industries, its extensive public works and institutions, and its connection by many lines of railway, road, and telegraph with other parts of the Union and

with British Columbia, Canada and Mexico, to the result brought about by the discovery of "some glittering particles" in the race at Sutter's Mill; and that the United States owes the rapid colonization of the territory westward of the Mississippi, to the immense subsequent extension of that discovery and to the further discovery within it of vast deposits of silver, lead and other metallic ores, and of practically inexhaustible supplies of coal and other useful earthy minerals.

When I come to a description of the changes which have taken place along the line of route which I travelled from San Francisco to Chicago, my readers will be better able to conceive the extraordinary rapidity with which the work of colonization has proceeded throughout the regions in question, whilst volumes could be filled with accounts of the interesting events and incidents which occurred during its progress.

On approaching the coast in the neighbourhood of San Francisco, the country has by no means an inviting aspect. Towards the north it rises in a lofty range, whose highest point is Table Hill, and forms an iron-bound coast from Pinto de Los Reyes to the mouth of the harbour. To the south there is an extended sandy beach, beyond which the sand hills of San Bruno rise to a moderate height. The entrance to the harbour, however, is very striking, bold and rocky

shores confining the tidal waters, which pass between them into and from a large estuary. In this, several rocks and islands are scattered, upon which various public buildings have been erected. The distant shores of the bay extend north and south far beyond the visible horizon, exhibiting one of the most spacious, convenient and safe harbours in the world, whilst to the east rises the great Sierra, brilliant with the tints which are produced by the atmosphere of the beautiful climate of California.

Up to the year 1842, the appearance of Yerba Buena, (which then occupied part of the site of the present city), as described by Captain Wilkes of the United States exploring expedition, was certainly not impressive. Its principal buildings consisted of a rough frame occupied by the agent of the Hudson's Bay Company; a store kept by an American named Speer; a billiard room and bar; a poop cabin of a ship occupied by a Mr. Hinckley, and a blacksmith's shop and some outbuildings. At that time, too, its site and the hills around it consisted of barren rock and sterile soil, and the miserable aspect of the whole place was aggravated, at low water, by the appearance of an extensive mud bank, which was then uncovered.

Now all has changed. A great city has replaced the wretched village of Yerba Buena; the hills, which formerly presented a miserable aspect, are nearly

covered with fine buildings; the unsightly mud flat and much beyond it have been reclaimed from the sea, and the soil with which they have been covered, has become the site of large piers and warehouses; whilst the eye dwells with pleasure on the evidence, every-where manifest, of a great and extending commerce.

The city occupies a commanding position facing its beautiful bay, and lies in an amphitheatre formed on the slopes of a number of hills, of which the principal are Telegraph, Rincon and Russian Hills. Its appearance from the Bay in its immediate vicinity, however, is not very striking, owing to the fact that the frontage on the shore line is occupied by extensive warehouses, wharf-sheds and other unsightly buildings, which mask any general view of the city.

The main streets, as in nearly all large American towns, are straight and parallel to each other, and are intersected at right angles by cross streets, by which means the city is divided into convenient building blocks. There are several open squares, but only one or two of them are as yet planted, or can be considered in any way ornamental. The public buildings are large and handsome, the chief ones being the Custom House, Mint, Municipal Buildings, Marine and other Hospitals, Medical Colleges, Schools of Mechanical Arts, Public Libraries (of which one, containing nearly 60,000 volumes, is free), Theatres, and many Churches

and Charitable Institutions. It also possesses an extensive and valuable mineralogical collection, illustrative of the mineral productions of the State.

I visited many of these, including some of the theatres, which are handsome and well decorated. Good companies were playing in them, and the attendance was crowded; but ventilation is not much attended to, and the heat was consequently very trying. Besides the foregoing, San Francisco contains a large number of factories, machine shops, glass works, sugar refineries; flour, saw, woollen and rice-cleaning mills and chemical works, and many fine quasi-public edifices used for banks, insurance offices and other purposes of general business. The streets (except California Street) are generally narrow, and all are ill paved, but admirably conducted tramways obviate, to a considerable extent, the discomfort and inconvenience of getting about them.

California Street contains a large number of fine buildings, without, however, any order as regards height, or architecture; but this gives it a picturesqueness which is generally wanting where more regularity exists. At night this street is particularly beautiful. In addition to the public electric lamps, it is then illuminated by innumerable similar lights, under brilliantly colored glass shades, from the shops, hotels, refreshment saloons, and other places of general resort,

besides the flitting red and green lamps of the many tramway and other carriages, which are constantly in motion. The shops and refreshment rooms are handsome and attractive, and are supplied with everything required by advanced civilization, at prices not unreasonably in excess of those which obtain in the eastern cities of America and in Europe.

Unfortunately, a part of San Francisco is occupied by Chinese, the population of that part of the city numbering upwards of 50,000. I visited China Town, and it is impossible to give any adequate description of its filth and squalor, and of the offensive evidences of immorality which it presents. The streets are narrow, ill paved, and, so far as I saw, without any appliances for cleansing them. The major number of shops in it are used for the sale of food which, to the general run of Europeans, would appear to be unfit for human consumption, consisting of stale vegetables, stinking fish, either dried or lately from the water, meat which appeared to be derived from the knacker's yard, and other articles more or less disgusting in smell and appearance. The Chinese inhabitants, too,—clad in dingy blouses, with their expressionless faces, rendered most hideous when they shew their large irregular yellow teeth, their bloodless sallow complexions, and bald heads,—were in keeping with the surroundings, and added to the generally disgusting appearance of the

quarter. Some years ago China Town was the subject of an elaborate investigation and report by a committee of the Board of Supervisors of the city and county of San Francisco, and the general result of their enquiry was of a most damning character.

It is certainly unfortunate that such a blot on civilization should exist in the principal city of Western North America; and there can be no doubt that the condition of things above faintly described fully justifies the steps which the United States, Australia and New Zealand are adopting, in order to prevent the influx of a people so utterly regardless of all the decencies of civilization. The gain to be obtained by the example of thrift and industry which the Chinese afford, is as nought compared to the contamination which results from contact with them, and I am satisfied that it is in every sense the interest of European colonizing peoples, to prevent their congregating in the colonial cities and towns, or in obtaining any strong footing in the rural districts. The condition of the quarter they occupy in San Francisco and some other cities of the Union, affords a clear answer to the remonstrances of the Chinese Government against their exclusion from the colonies. That Government should be made to understand that, until the Chinese have learnt to adopt the same modes of life as the Europeans, they will not be permitted to inhabit our towns or mix with our people.

Competition with our labourers has really very little to do with the matter.

The water supply of San Francisco is magnificent. In 1876-7 an elaborate and costly examination of a number of sources, from whence a large and continuous supply could be obtained, was undertaken by the Board of Supervisors, and no less than six schemes were reported upon, each of which would yield one hundred millions of gallons daily, the cost varying from $14,200,000 to $23,000,000. I am not sure which of the schemes was ultimately adopted, but the supply is abundant and continuous. Open canals are used for a considerable distance from the sources, in which the flow of the water is rapid. This ensures the continued aeration of the water, which contributes largely to its purity and excellence. The ultimate pressure on the delivery pipes is upwards of 300 feet, an important point in relation to fire extinction. The fire brigade organization is in every respect admirable, the appliances requiring traction being available, at each station, in eight seconds after an alarm has been given. The horses are trained to place themselves under the harness on the first stroke of the alarm bell, the harness is lowered to their backs, and is almost instantaneously fixed by a series of springs, whilst the hose-reels, &c., are attached simultaneously. Those members of the Brigade who are for the time being on duty at the

station, descend from their rooms by means of slides conveniently placed for the purpose; the main doors are thrown open, and all necessary appliances are at once on their way to the scene of the fire.

The city is remarkable for its hotels, many of which are splendid in structure and appointments, and admirable in their management and the comfort they afford. I stayed at the Palace, which, though not the largest, is certainly one of the most excellent hotels in America. It cost $3,250,000 or £812,500 in construction, and can accommodate 1200 guests. The bedrooms are large, well furnished and comfortable, and the drawing and dining rooms are really magnificent. In addition to the ordinary dining arrangements, it contains a separate restaurant, which is one of the best I ever saw. Looking to all this and to the luxurious excellence of the table and attendance, the extreme civility of all engaged in the management, and the many minor conveniences afforded to visitors, the charges were very moderate. There is one special point in which American hotels are far in advance of those in Europe, namely, that of attendance. The dining rooms usually contain a number of separate tables, at each of which six persons are accommodated, two waiters attending to each table. The kitchen arrangements are such as to accord with this, and the result is, that there is not that delay in service, which is so trying and unpleasant in European

and especially in English hotels, in which the attendance is generally scanty and unsatisfactory. I was much amused, however, at one matter of common practice in the American hotels. On the night of my arrival, I placed my shoes outside my bed-room door, expecting to find them clean next day. On opening the door in the morning they were still there and still soiled. I summoned the chambermaid, who told me that the matter was no concern of hers, but that she would send the porter of the flat to see me about it. He came and informed me that it was not the practice to clean shoes in the manner I had supposed, and cautioned me about leaving mine outside my door again, as they might "vamoose," which I understood as a corrupted Spanish word for "disappear." I asked what I should do, and he advised me to apply to the hall porter. I descended with my soiled shoes on and appealed to the hall porter, who, pointing to a recess under the great staircase, told me to go in there and he would "send a *gentleman* who would clean my shoes." I went in and heard the porter call out to some one, "Here, Bill, here's a *man* wants a shine." The "gentleman" soon made his appearance. The recess referred to was fitted with a high bench on which I perched myself. On a lower one were fixed upright iron standards in pairs, on which foot-supports were placed, upon which the "man as wants a shine" places his feet and gets it. I got

mine—cost, ten cents. I found similar establishments, both in and out of the hotels, all over the American towns, and during my walks frequently took advantage of them to get a rest and a "shine."

The markets are well supplied with every kind of meat, fish, vegetables and fruit, and the mode in which the latter is packed makes it very attractive.

Strawberries, cherries, plums and peaches were delicious and abundant, and although there were also plenty of oranges, bananas and other tropical and semi-tropical fruits, the demand for these was not great, in view of the abundant supply of the former.

I cannot say much for the surroundings of San Francisco, which are certainly not attractive. Golden Gate Park, fronting the ocean, which formerly consisted of shifting sand dunes, now reclaimed, is well laid out; but the effects of a recent north westerly gale upon the vegetation seemed to indicate that much difficulty will be found in maintaining its beauty and freshness. I observed that many New Zealand shrubs, cordylines, &c., were used in the plantations, and these appeared to have withstood the effects of the gale better than the pines and other introduced forms. I visited the large hotel in front of the seal rocks, and it was interesting to observe the gambols and listen to the deep roaring of the numbers of these animals which congregate upon

them. They are strictly protected, heavy penalties being imposed for molesting or injuring them.

I need scarcely say that the commercial importance of San Francisco is very great, and that much impulse has been given to its progress, within the last ten years, by the construction of the several lines of railway of which it is the western terminus. The coinage at the mint had amounted, in 1884-5, to upwards of $72,000,000. The export of treasure has fluctuated a good deal; in 1884-5 it reached $17,540,000, with quicksilver of the value of $488,000. The exports by sea for the same period, including treasure, reached $37,170,800, and the imports, $37,170,100. Besides treasure and quicksilver, the chief foreign exports are wheat, timber, hides and canned fish, and the imports consist of a great variety of raw and manufactured articles. No record is kept of the value of goods exported or imported by rail, but there is no doubt that it exceeds those which are sea borne. The vessels entered inwards for 1884-5 were,—sailing vessels, 619 of 604,200 tons, and 228 steamers; but I have no record of those cleared.

Many large ocean steamers are engaged in passenger and goods traffic between San Francisco and British Columbia, Mexico, Central and South Western America, the Sandwich Islands, Japan, China and Australia, whilst others of smaller size maintain communication with Sacramento, Marysville, San Jose, Santa Clara,

Los Angeles and other places. It is interesting to note that whilst the population of Yerba Buena was only 200 in January, 1847, at the end of that year it numbered upwards of 2000, whilst that of the new city of San Francisco was, in 1850, 34,000; in 1860, 57,000; in 1870, 149,000; in 1880, 234,000 and in 1885, 275,000, of whom the Chinese numbered upwards of 30,000. I have no returns later than 1885, but it is certain that everything has largely increased during the interval. I may add here the following interesting notice with respect to the fruit trade of California:—

The British Consul at San Francisco, in the course of a report on the agriculture of California, refers to the enormous fruit trade of that state. It produces every kind of fruit that grows in a semi-tropical and temperate climate. Among the former are the orange, lemon, citron shaddock, and other citrus fruits, the olive, pomegranate, fig, banana, apricot, nectarine, walnuts, almonds and grapes, producing wine and raisins; belonging to the temperate zone are apples, pears, plums, cherries, peaches. currants, gooseberries, blackberries, raspberries and strawberries. The green fruit trade of the state has increased enormously. In 1887, the trade in green fruit with the eastern states, amounted to about 35,000,000lb. weight. The output of the various canneries in 1886 amounted to about 30,000,000lb., including 659,950

cases of fruit, 203,500 of vegetables, and 22,500 of jellies and jams.

The estimate for 1887 is 792,500 cases of fruit, with an average of about 45lb. of fruit to the case. Of these, 220,000 cases were peaches, 175,500 apricots, 150,000 pears, 60,000 cherries, 40,000 plums, 35,000 grapes, 25,000 blackberries, and 15,000 each strawberries and gooseberries. The export of dried and evaporated fruits and vegetables in also enormous. Thus the export of grapes treated in this way in 1887 was 16,000,000lb.; apricots, 15,000,000lb.; honey, 1,340,000lb; French prunes, 1,750,000lb.; walnuts, 1,500,000lb.; peaches, (evaporated) 1,250,000lb.; almonds, 500,000lb.; plums, 500,000lb.; and smaller quantities of many other fruits. The growing of grapes for raisins has proved a most profitable crop, with a ready market for all that can be made. Californians believe that their raisin crop will eventually drive the foreign produce from the markets of the United States, and, from the statistics of the trade, the Consul is inclined to believe that they will. The wine production in 1887 was 13,000,000 gallons. 150,000 acres of the state are planted with vines, and not less than 90 per cent. of these are foreign varieties. That the improvement in the quality of the wine produced is very marked there can be no doubt, and the former Californian wine, with its disagreeable, harsh, fozy taste, is fast becoming a thing of the past. This is

due to the importation of the best varieties of foreign vines, and a more careful system of cultivation, manufacture and preservation of the wine.

The number of sheep in the state is from four to four and a-half millions; the wool clip in 1854 was 175,000lb., and in 1876 it had reached 56,550,970lb. After this it fell off, and in 1887 was 31,564,231lb., but with a great improvement in the quality.

CHAPTER III.

THE ROUTES TO SALT LAKE CITY—VALLEY OF THE SACRAMENTO—THE SIERRA NEVADA—THE GREAT DESERT—ORIGINAL DISCOVERIES IN CALIFORNIA—SIR FRANCIS DRAKE AND THE INDIAN KING—WHENCE THE NAME OF THE GREAT BAY—THE SAN JOAQUIM—WALKER'S PASS.

I LEFT San Francisco on the 11th June by the Central Pacific Railway direct for Salt Lake City, intending to proceed from thence by the Denver and Rio Grande line to Denver, and by the Burlington route to Chicago. There are several principal railway routes by which the latter city may be reached from San Francisco, namely, 1, By the Central Pacific to its junction with the Oregon and California, thence by that line to its junction with the Northern Pacific and by that line to Mineapolis, and on by the Burlington route; 2, By the same route to Umatilla junction on the Columbia River, and thence by the Oregon Railway and Navigation Company's line to its junction with the Union Pacific line, and by that line to Cheyenne, and thence by the Burlington route; 3, By the Central Pacific direct to Salt Lake City and thence by the Denver and Rio Grande to Denver, and on by the Burlington route; 4, By the Central Pacific and Southern Pacific and Atlantic and Pacific to Albuquerque, and from thence

by the Topeka, Atchison and Santa Fe direct to Denver, or to La Junta and on to Atchison on the Missouri, and from thence, or Denver, as the case may be, by the Burlington route; and 5, By the Central Pacific and Northern Pacific to Los Angles, Bettson and Rincon, and from thence to Albuquerque and on as before, either to Denver or by La Junta to Atchison or Kansas City, and from either of these by the Burlington route to Chicago.

On each of these routes there are many points of interest, and Salt Lake City may be reached either by the third, which is the direct route, or by either of the first two, by making for Pocatello in Idaho, and from thence by McCammon and Ogden to Salt Lake, but except for those who wish to visit Oregon and Idaho, there is no reason for adopting so roundabout a course. The direct route leads through Sacramento, and from that city across the Sierra Nevada, descending that range to Reno, and from thence amongst the detached ridges, plateaux, valleys and sandy plains which occupy the western and northern edges of the Great Basin, to Ogden and Salt Lake City. The railway from Sacramento to the summit of the Sierra follows the general line of the Rio de los Americanos and crosses it near Donner Lake, some few miles to the southward of the pass over which Fremont made his adventurous journey in 1844.

We left San Francisco at half past three in the afternoon, crossing by ferry steamer to Oatlands, then taking the railway to the ferry over the Sacramento at Behicia, and on without further change to Ogden and Salt Lake City. I had no opportunity of seeing Sacramento, and but little is at any time seen of the Sierra Nevada, whilst crossing it by the ordinary eastern train, which is always done at night. Owing to our train having been delayed during this part of the journey, by causes which I was unable to discover, we did not get through the snow sheds on the Sierra during the night, and had, therefore, to traverse many miles of them by daylight on the morning of the 12th, a process even more wretched than an equal length of ordinary tunnel, not only because of the tantalizing effect of the little glimpses, which we occasionally obtained through openings in the slabbed sides of the sheds, of the great mountain chain, and of many beautiful plants and flowers growing on the sides of the line, but also because of the unpleasant effect produced by the bright sunlight as it passed through those openings in rapidly broken flashes. The car in which I travelled was called the "Contento," and afforded me my first experience of a sleeping car. It would have been comfortable enough but for the great heat, aggravated by the unpleasant fumes from several large kerosene lamps, which were kept burning during a great part of

the night. Passengers by this line usually breakfast at Reno at the eastern foot of the Sierra, but, owing to the delay above referred to, we were compelled to stop at Truckee, about 1100 feet below the summit, (which is about 7000 feet above sea level), a place most graphically described by Miss Bird in her account of her life in the Rocky Mountains. Immediately after crossing the summit we came in sight of Donner Lake — a beautiful sheet of water filling a depression in the mountains and probably the site of an extinct glacier,— which was the scene of a sad and terrible drama in the early years of Californian settlement, of which a short account is given in Miss Bird's book. The mountains rise on each side of the pass to the height of from 9000 to 11,000 feet above sea level, and during winter are completely covered with snow, of which, however, at the time of my journey they were comparatively free. The eastern slopes were formerly densely timbered with magnificent pines, but for many miles on each side of Truckee the whole of the larger timber had been cut, without, however, altogether destroying the picturesqueness of the scenery, the smaller timber giving some relief to the barrenness of the mountains.

The Sierra Nevada is the main condenser of the moisture which the southerly winds bring from the regions of maximum evaporation in the Pacific. This burden of moisture is almost entirely unloaded on the

western side of the Sierra, but little being left for deposit on the elevated plain country to the eastward. Observations on these points, (taken along the line of the Central Pacific Railway) have shown that on the western slopes this precipitation increases with the altitude, and obtains its maximum at about 5000 feet elevation, preserving it to the highest point to which systematic observations have extended, namely, the summit of the pass over which the line has been constructed.

Starting from Sacramento the increase of rainfall, in ascending, is as follows:—At Auburn, 1300 feet above sea level, it is 50 per cent. greater than at Rocklin, 270 feet high, whilst at Colfax, 2450 feet above sea level, the fall is 33 per cent. more than at Auburn, and nearly equal to that at the summit, the lowest rates being 75 per cent. and the highest 83. At Truckee on the eastern slope, at 5000 feet elevation, the average fall is 54 per cent. of that at the summit, whilst at Reno, some miles to the eastward of Truckee, and 4500 feet above sea level, the fall is never so much as 10 per cent. of that at the summit. The lowest fall on record was that in the winter of 1870-71, in which there were at the summit 37.77 inches, at Colfax 31.07 inches, at Truckee 16.16 inches, and at Reno 3.82.

The general physical aspect of the Sierra is that of immense peaks and ridges of granite,

the summits denuded, bald and bare, when free of snow, the less exposed flanks of the higher regions supporting a scanty vegetation, chiefly consisting of stunted trees, always struggling with and almost overwhelmed by the climatical conditions by which they are environed. Here and there, mingled or alternating with the granite, or perhaps overlying it, are picturesque masses of basaltic rocks. Scarcely any organic life, except the struggling vegetation, is visible in these higher altitudes. Descending to a lower level on the western side, perhaps two thousand feet below, the landscape opens out into amphitheatres, in which lakes and meadows, once lakes themselves, afford a variety of scenery less grand but softer to the eye. Cattle and sheep are driven here from the plains below, for the sake of the pasturage which these meadows afford for three or four months in the year. These flocks and herds return to the plains when the first premonitory storms visit the mountains. This second level is timbered with groves of fir and tamarisk. Descending still lower, a sugar pine belt is found; and below that again the ridges are closely covered on the tops and flanks by magnificent forests, of which by far the greater part are coniferous trees, with here and there an oak. The flanks of these ridges are deeply eroded by the small streams, which, at short intervals of distance on either side, pursue nearly parallel or converging

paths, uniting in the main streams which lie perhaps 2000 feet below. The main streams pursue nearly parallel paths, and uniting in the lower foot-hills they form the rivers which have distinctive names on the maps. These streams fall over rocky channels with precipitous descent, at one season boiling torrents, at another gentle rivulets.

The geological character above described in the higher regions is changed in the mining districts, which cover perhaps the lower third of the flanks of the mountains. Here the gold bearing slates lie with upturned edges, and the granite gradually disappears. Here and there calcareous deposits occur, but generally to a very small extent. Except the miners there are few or no inhabitants, and little or no cultivation.

The upper regions contain many lakes, which lie nestled in greater or less profusion all along the range, with areas from a few acres to some hundreds, in amphitheatres surrounded by peaks and ridges a thousand feet or more above them, and generally with narrow outlets. The lakes are said to be undergoing a process of diminution, both in depth and in area. They are the resting places of the granite detritus, eroded from the mountains above by the small streams which supply them, and this action, in time, supplemented by the aid of frost, must, it is believed, bring

them to the condition of the meadows, which in some cases surround them.

From this description of the physical character of the Sierra, its picturesque appearance may be imagined by any one at all acquainted with the aspect of a great mountain range, whilst the climatal conditions on its eastern side, fully account for the generally barren and desert character of the region which lies between it and the Rocky and Wahsatch mountains. These latter ranges together serve to precipitate the moisture carried by the higher air currents from the Oceanic areas of evaporation on the eastern side of the Continent, as well as from the great lakes to the eastward of the Mississipi, and from the moist region in the northern parts of the British possessions.

The desert region above referred to—usually known as the "Great Basin"—is one of the most remarkable deserts of North America. Its lower grounds have a general elevation of about 4,800 feet above sea level. In shape it is nearly square, each side measuring about 525 miles. Its northern side lies at the foot of the mountain ridge, which extends from the Bear River on the east to the line of the Sierra Nevada on the west, and on the northern side of which nearly all the chief affluents of the Columbia River take their rise. Its eastern boundary is the foot of the Rocky and Wahsatch Mountains, and extends from the great bend

of the Bear River in the north to the San Bernardino range in the south, and its western boundary is the eastern slope of the Sierra Nevada, from Buffalo Valley in the north, to the extremity of the Sierra, which lies about 150 miles below the lakes in which the San Joaquim River has its source. The Central Pacific Railway, after reaching Humboldt Lake, follows the general line of the river of the same name (which runs nearly parallel with the northern boundary of the desert), until it enters the country which forms the northern boundary of the Great Salt Lake. There is a branch narrow gauge line from Reno to Carson City, which runs for nearly 140 miles along the eastern foot of the Sierra, and there are two other narrow gauge branches further to the eastward, one from Battle Mountain to Cloverdale, and the other from Palisade to Eureka, each running in the valley of a tributary of the Humboldt. Within the area of the desert there are a large number of detached ranges, some of them attaining a height of from 4000 to 5500 feet above the general level of the basin, and all having a trend from north to south. Many of them have been found to contain valuable mineral deposits, including silver; and small towns have been erected in the vicinity of such places, each of which is supported by the mining inhabitants of the neighbourhood. I am not aware whether cultivation to any extent is carried on by these people, but

the description given of the interior of the great basin, by Fremont and other explorers, leads me to suppose that, except in the immediate vicinity of water courses as they emerge from the mountain ridges, there is but little country available for that purpose.

The history of the development of California, Utah and Colorado is very interesting, but more especially that part of it which includes the last forty-five years, of which I propose to give an account further on.

The first explorations of California were conducted by the Spaniards, and were commenced whilst Ferdinand Cortez was viceroy of Mexico. In 1523 the Emperor Charles V., by a letter from Valladolid—where he was then holding his Court,—directed Cortez to search for a passage which would lead to the East Indies from the western coasts of New Spain. Cortez, in reply, expressed a strong hope of being able to comply with this instruction, and made many attempts to discover such a passage. Amongst others he equipped two vessels in 1534, one of which he placed under the command of Hernando Grixalva, and the other under Diego Bercerra de Mendoza, with orders to fully explore the shores of the Gulf of California, and to ascertain what had become of a vessel which had previously been despatched on the same quest, and had not since been heard of. The first night after the departure of their ships from Tehuantepec they became separated, and never

met again. Grixalva, having discovered an uninhabited island, to which he gave the name of St. Thomas, returned to New Spain. Bercerra, who was a haughty and passionate man, and treated his crew with great severity, was assassinated at the instigation of the pilot, who then took command and directed his course towards the north. Having reached the peninsula, he gave the name of Santa Crux to the place where he cast anchor, and which has since been identified as the Bay of Paz, on the western shore of the Gulf. He and twenty of his men having been murdered by the Indians, all further attempts to carry out the expedition were abandoned, and the ship returned to Tehuantepec. In 1535, Cortez in person visited both shores of the Gulf, which was then named the Sea of Cortez, a name afterwards successively changed to the "Red Sea," and the "Vermillion Sea," both names being suggested in consequence of the color imparted to its upper waters, by the matter brought into it by Colorado River, and the latter being that which was ultimately adopted and which it now bears. No important results having followed this expedition, Francisco of Ulloa was despatched, some two years afterwards, to the mouth of the Colorado River, with instructions to penetrate overland into New or Upper California. He failed in carrying out this design, which, however, was after-

wards successfully accomplished by a Portuguese pilot, named Juan Rodriguez Cabrillo.

In June 1542, Cabrillo, under orders from the then viceroy of New Spain, Antonio de Mendoza, sailed from Naturdad, in Mexico, to explore the north coast. He discovered a cape, which he named Cape Mendoza, in honor of the viceroy, and made a *reconnaissance* as far north as 44 deg., but owing to fatigue and illness he was obliged to return to Mexico.

In 1599 Gaspar de Zuniga, Count of Monterey and viceroy of Mexico, acting under instructions from Philip II., sent out another expedition, with instructions to found settlements on the Pacific coast of California. General Viscania, to whom the command of the land forces was confided, left Acapulco in 1602, and discovered the ports of San Diego and Monterey, the latter having been named in honor of the then viceroy. This expedition reached the 42nd degree of north latitude, and on its return the results reported excited the ambition and cupidity of many private individuals, for the interior of California was said to be rich in gold and silver mines, whilst it was also said that pearls of great beauty and value had been found in the seas along the coast. The result was that several private expeditions were despatched between 1615 and 1618, but none of them led to any important results, and no attempt at actual settlement was made until 1677, when orders were

issued by the Court of Madrid for the conquest and settlement of the whole country. An enterprise was fitted out for this purpose, at a very great cost, the command of which was conferred on Admiral Don Isidoro Otondo Antillon, who was accompanied by several fathers of the Society of Jesus. This expedition sailed from Chacala in 1683, and several settlements were founded along the coast line, those at San Diego and Monterey being the principal ones. The difficulty, however, of supplying the expenses,—which were very large,—of these settlements, soon led to their practical abandonment, but the Jesuits, unwilling to relinquish the prospect of converting the Indians, determined to continue the spiritual work they had begun. It was not, however, until the year 1697 that they were able to give much practical effect to this desire, and even then the difficulties they had to encounter were very great. In the previous year Father Salva Tierra, a prominent master of the order, desiring to consecrate himself to the mission of California, endeavoured to obtain the necessary authority to do so, but his request was repeatedly refused by the provincials to whom he proffered it, and, moreover, it was strongly opposed by the Audiençia of Guadalaxara and by the viceroy of Mexico. The treasury, which had been exhausted by Otondo's unfortunate affair, was in no condition to bear further drains upon it, and even the Court of Mexico,

though strongly impressed with the importance of the proposed work, objected to the mission, notwithstanding that Father Salva Tierra's request was backed by many influential members of the council of the Indies.

But he was not discouraged, and continued to urge his suit to the Father-general of his order, who at length yielded to his requests. The Audiençia of Guadalaxara had, in the meantime, changed its opinion on the subject, and he received great assistance from their solicitor Don José de Miranda Villazar, who became his fast friend, and seconded his views with all the influence of his position. At his recommendation the Audiençia presented a petition to the viceroy in July 1696, strongly recommending the matter to his favorable consideration, and the necessary permission having been at length granted, the Father went to Mexico, early in 1697, in order to make the necessary collections and arrangements for the enterprise. There he met with Father Ugarte, a man of great power and influence and of indomitable zeal and perseverance, who undertook to be his agent at Mexico, in order to remove any difficulties which might from time to time arise. Some time after, he received promises of considerable sums of money, and eventually was able to raise fifteen thousand crowns to defray the expenses of the expedition, whilst the treasurer of Acapulco offered him the use of a galliot to convey himself and his suite to Monterey,

and made him a present of a small barque. But, as he received in addition to all this an annual income, in order to assure the success of the mission, he pursuaded the congregation of "Our Lady of Sorrows of Mexico" to invest eight thousand crowns for that purpose, afterwards made up to ten thousand, it having been found that each missionary required at least fifty crowns a year for his subsistence.

Having thus obtained all he required to start and found his mission, he left Mexico on the 10th October 1697, committing to Father Ugartè the care of collecting alms and taxes, and remitting them to him *via* Acapulco. After three days navigation the expedition entered Conception Bay, and disembarked at San Dionysius, which afforded the best anchorage. Fifty catholic Indians had accompanied the expedition, in order to help the father in effecting his installation; and the zealous missionary, after having provided for the first wants of the new establishment, began to study the language of the Indians, in order that he might the better devote himself to their religious and moral well-being. It was not, however, without much trouble and suffering, owing chiefly to the jealousy of the Indian priests, who saw their own influence being destroyed by the proceedings of the mission, that Father Salva Tièrra's efforts were crowned with success, though, at length, he was enabled to continue his operations for many years.

But the expulsion of the Jesuits from Spanish Territory in 1776 led, amongst other things, to their missions in California being broken up, and to the establishment of bodies of Dominican and Franciscan friars as their successors. The first of these new missions in Upper California was established at San Diego, by Father Junipero Serva of the order of St. Francis, and an old chronicle attributes to this friar the discovery and naming of the Bay of San Francisco, destined to become so celebrated in after years. The account given of the discovery is as follows:—Desiring to return to Monterey, Fra Junipero followed the coast range which separates the valley of the San Joaquim from the sea, but travelled along its inland slopes. In doing this he passed Monterey without perceiving it, and arrived at the Bay of San Francisco, to which he at once gave the name of the founder of his order.

His reason for adopting this name was that, shortly before leaving San Diego, he received instructions from the Inspector General concerning the names of the Saints to be given, as patrons, of the new mission which he was about to found. The name of St. Francis was not in the list. "What," said Father Junipero, surprised at this omission, "is there to be no mission dedicated to our dear founder, St. Francis?" To which the Inspector replied, "If St. Francis wishes for a mission, let him find a good port for you, and

then you can call it after him." The first harbour discovered after this conversation was the magnificent bay of San Francisco, and the ecclesiastics, on seeing it, at once exclaimed, in a transport of joy, "Behold the port the Inspector desired, and towards which St. Francis has led us: blessed be his name!"

It was long believed that Sir Francis Drake had visited the harbour of San Francisco in 1579, although more careful investigations have led to doubts on this point. He described the inhabitants, with whom he had intercourse, as living in huts, but as being destitute of any clothing except a breech-clout, similar (according to his account), to that which is now worn by the Mojave Indians of Colorado, and he represents them as having presented him with feathers, head-dresses and tobacco. He states that his arrival soon became known throughout the neighbourhood, and that some of the natives announced to him that the King of a great nation desired to see him, provided he were assured of protection. Drake says that he made them understand that the King would be welcome, and that soon afterwards he and his buccaneers saw a numerous band approaching, at the head of which walked a man of noble appearance bearing a stick by the way of a sceptre, from which hung two crowns made of feathers, and three great gold chains, and that the King came immediately afterwards, sur-

rounded by a crowd of men of noble stature, clothed in the skins of animals whilst a multitude of savages terminated the cortege. He represents them as having been painted with divers colors, and laden with all sorts of presents. The sceptre bearer made a long speech, followed by dances and ludicrous songs. Then the King advanced towards Drake, and placing on his head one of the two crowns carried by the sceptre bearer, made over his kingdom to him, which Drake readily accepted in the name of his Sovereign. Such is the story told by Drake, but it is probable that it was in a great measure invented in order to secure, if necessary, the subsequent annexation of the country to the Crown of England. Be this as it may, it is clear that he and a party of his men advanced some distance into the country, where they saw rabbits running about in thousands. On his return he affirmed that it must contain abundance of gold, of which he said quantities were found in several spots. Later on, Cavendish and Rogers visited California, but their account of the inhabitants is more in accordance with the condition of the tribes at the time of the gold discoveries described in the last chapter, than those given by Drake.

Indian tradition says that the bay of San Francisco was once a lake of fresh water, and was subsequently joined to the sea by an earthquake, but I am not aware whether this tradition has received any confirmation

from the geological examination of the coast line. I should very much doubt it, looking to the fact that the supposed lake must, in that case, have occupied the whole valley of San Joaquim, and a large part of that of Sacramento, and that its only possible outlet must have led into the Colorado River, of which, however, no traces are described by any of the explorers of the country between the Colorado and the Tulare Lakes. I have not been able to discover that the Spaniards ever extended their settlements further north than Yerba Buena, which, it will be remembered, occupied part of the site of the present city of San Francisco, or into the valleys of the Sacramento or San Joaquim, although they were fully aware of their extent and value; and, indeed, we shall find that, even so late as 1884, there were no European inhabitants in either valley, except at Captain Sutter's settlement at New Helvetia.

CHAPTER IV.

THE GREAT BASIN—SHOSHONE INDIANS—THE BEAR RIVER—SINGULAR VOLCANIC PHENOMENA—THE GREAT SALT LAKE—FREMONT'S VOYAGE—KIT CARSON'S BOAT—STRANGE FOOD—TLAMATH LAKE—PYRAMID LAKE—INDIAN ENCAMPMENTS—THE DESERT—ATTACK ON INDIANS—SEVIER LAKE.

THE peculiar physical features of the northern and eastern edges of the "Great Basin," and the existence of the Great Salt Lake, had become known to geographers through the reports of the trappers and Indian traders who frequented the Rocky Mountains and the range which forms its northern boundary, but, until the results of the exploration undertaken and carried out by Fremont in 1843-4 were published, there was no reliable information as to its extent or character, the accounts derived from the trappers being generally vague and obscure, whilst occasionally they bordered on the marvellous. The Great Salt Lake, especially, was the subject of many remarkable stories. Amongst others it was said to have no visible outlet, but that somewhere on its surface there was a terrible whirlpool, through which its waters found their way into subterranean passages which led to the Western Ocean.

The mode of life of the Indians who inhabited it was represented as being so different, too, from that of any of the tribes on the eastern side of the Rocky Mountains as to excite much curiosity, but as there were no apparent inducements sufficient to counterbalance the difficulty and danger of penetrating into this wild and remarkable region, very little of an authentic character was known about them until the result of Fremont's journey was reported to the United States Government. In September, 1843, after having crossed the first dividing ridge of the Rocky Mountains, to the westward of the Green River, (one of the main branches of the Colorado), he determined to visit the Great Salt Lake. In order to reach it, he followed the course of the Bear River, which is its main feeder. This river has its sources on the eastern side of the range which forms part of the boundary of the desert, and, after passing through Bear Lake, curves round the northern extremity of that range, from whence its course is southerly until it falls into the Great Salt Lake. Its valley is fertile and picturesque, and generally quite level, the mountains on each side rising abruptly from its edges. From the curve above referred to, the old emigrant trail to Oregon passed for some distauce down the valley, and then turned over the range of mountains on its western side, descending from thence to the Snake River, one of the main branches of the Columbia.

The line of this "trail" is now occupied by the Union Pacific Railway, a branch of which leads from Pocatello by McCammon to Ogden. Only a year or two before Fremont's journey this route had been a very dangerous one, owing to frequent incursions of the Blackfeet Indians, who were and still are remarkable for their treachery and bloodthirstiness. The mountains to the westward were occupied by Shoshone Indians, who subsisted on the produce of the chase, and on the service and other berries, which were found abundantly in the forest and scrub with which they were clothed. Fremont found a large body of these people encamped in the valley, and took the opportunity of visiting them. When he and his party had approached within something more than a mile of the village, a single horseman suddenly emerged from it at full speed, followed by another and another in rapid succession; and then party after party poured into the plain, until, when the foremost rider had come up to Fremont, the whole intervening plain was occupied by a mass of horsemen, which came charging down with guns and naked swords, lances and bows and arrows. Indians entirely naked, and warriors fully dressed for war, with the long red streamers of their war bonnets reaching nearly to the ground, were all mingled together in the bravery of savage warfare. They had been thrown into a sudden tumult by the

appearance of the United States flag, which was regarded as an emblem of hostility, it being usually borne by the Sioux and the neighbouring mountain Indians when they made war upon the Shoshone, and Fremont's people had been mistaken for a body of their enemies. A few words from the chief quieted the excitement, and the whole band, increasing every moment in number, escorted Fremont to their encampment, where the chief pointed out a place to encamp in, near his own lodge, and made known the purpose of the white men in coming to the village. In a very short time Fremont purchased eight horses, for which he gave in exchange blankets, red and blue cloth, beads, knives and tobacco, and the usual other articles of Indian traffic. He obtained from them also a considerable quantity of berries of different kinds, among which service berries were the most abundant, and several kinds of roots and seeds, which he and his party ate with pleasure, as any kind of vegetable food was gratifying to them after having been so long confined to a purely flesh diet. He there saw, for the first time, the *Kooyah*, (*valierana edulis*), the principal edible root among the Indians who inhabited the upper waters of the streams on the western side of the mountains. It had a very strong and remarkably peculiar taste and odour, which was comparable to no other vegetable known to him, and which to some persons was extremely

offensive. It was characterized by Mr. Preuss as the most horrid food he had ever put into his mouth; and when, in the evening, one of the chiefs sent his wife with a portion which she had prepared as a delicacy to regale Fremont and his party, the odour immediately drove Preuss out of the lodge; and frequently afterwards he used to beg, that when those who liked it had taken what they desired, it might be sent away. Most of the others, however, found the taste rather an agreeable one, and were glad when it formed an addition to their scanty meals. It is said to be full of nutriment, but, in its unprepared state, to possess strong poisonous qualities, of which it is deprived by being baked in the ground for about two days.

After leaving this camp, Fremont and his party travelled leisurely down the valley, in which they found great numbers of mineral springs, many of them proving, on analysis, to be of considerable value for medicinal purposes, equal indeed in all respects to those at Manitou, whilst others had a pungent, disagreeable, and bitter taste, leaving a burning effect upon the tongue and palate. In one part of the valley, whilst strolling amongst the timber which occupied the bottom towards the mountains, Fremont found the remains of a very large number of geysers, which, when in full activity, must have presented a display upon a grand scale. Some of them were still active, and consisted of

columns of calcareous sinter from five to six feet in height, from the summit of which water was still bubbling over. The whole valley, indeed, appeared to be filled with remarkable evidences of volcanic action, two of which seemed to have been specially interesting to him. In one of them he found a great number of springs issuing from the foot of a mountain spur composed of compact rock of a dark blue color. The water had a pungent metallic taste, but was perfectly clear and bright. It flowed into a basin about fifty feet in diameter, in which it stood at an elevation of several feet above the surrounding ground, being retained in the basin by a wall of calcareous tufa, some ten feet high. The water when collected in the basin was of a rich blue color. It appeared to find its way, by a subterranean passage, into another similar basin some distance below, from the surface of which small columns were constantly projected into the air, apparently by gas escaping violently from orifices in the floor of the basin. From this second basin the water flowed, also by a subterranean channel, into a creek which discharged itself into the main river.

Further down the river he made his first acquaintance with the Digger Indians, said by all travellers in the country to the west of the Rocky Mountains to be the most degraded type amongst the aborigines of North America. His party came unexpectedly upon several

families of these people, who were encamped amongst the rushes on the bank of a small stream, and were busy about some weirs, rudely made of cane, for catching fish. They had large heads with matted hair, were naked, and looked poor and miserable, as if, in fact, their lives were spent amongst the rushes in which they were found. On the 3rd September he reached low grounds covered with rushes and other water plants, over which the river spread in all directions, converting the bottom into a fetid mire, barring further advance on horseback. This morass was alive with water fowl, amongst which were pelicans, geese, ducks and plover in enormous numbers. His party after making their way to dry ground on the left bank of the river, saw what appeared to be a portion of an old lake bed, stretching before them as far as the eye could reach, in the form of a great marsh, level and bare, and whitened by saline efflorescences. Skirting this plain for nearly two days, on a trail leading along the foot of the mountains which formed its eastern boundary, they reached the fork (afterwards named Weber's Fork*) of a large and well timbered stream, which flows into the Great Salt Lake. Here they encamped, and on the morning of the 6th, on ascending a

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* So named after the late Mr. Carl Weber, of Hawkes Bay, who was lost in October, 1886, in the Mangatainoko Bush, Wellington Provincial District, New Zealand.

"Butte," the name given to the peculiar isolated mountains which are found all over the great desert, they saw at their feet the object of their anxious search, the waters of the great inland sea, stretched in solitary grandeur far beyond the limit of their vision. In his account of this, he thus describes the feelings he and his party experienced on first gazing on the remarkable scene presented to their view:—

"It was one of the great points of the exploration, and as we looked eagerly over the lake in the first emotions of excited pleasure, I am doubtful if the followers of Balboa felt more enthusiasm when, from the heights of the Andes, they saw for the first time the great western ocean. It was certainly a magnificent object, and a noble terminus to this part of our expedition; and to travellers so long shut up among mountain ranges, a sudden view over the expanse of silent waters had in it something sublime. Several large islands raised their rocky heads out of the waves, but whether or not they were timbered was left to our imagination, as the distance was too great to determine if the dark lines upon them were woodland or naked rock. During the day the clouds had been gathering black over the mountains to the westward, and while we were looking, a storm burst down with sudden fury upon the lake, and hid the islands from our view. So far as we could see along the shores there was not a solitary tree, and

but little appearance of grass, and on Weber's Fork, a few miles below our last encampment, the timber was gathered into groves, and then disappeared entirely. As this appeared to be the nearest point to the lake where a suitable camp would be found, we directed our course to one of the groves, where we found a handsome encampment, with good grass and an abundance of rushes *(equisetum hyemale)*. At sunset the thermometer was 55deg., the evening clear and calm with some cumuli."

The expedition was provided with an indiarubber boat 18 feet long, and made somewhat in the form of the bark canoes of the North American lakes. The sides were formed of two air tight cylinders eighteen inches in diameter, connected with others at the bow and stern, and, to lessen the danger from accidents, the interior was divided into four compartments. It was sufficiently large to accommodate five or six persons and a considerable quantity of luggage. Unfortunately the sheets of indiarubber of which the boat was composed, instead of being sewed, were pasted together in a somewhat insecure manner, owing apparantly to the short time given to the maker for preparing it, but this only added to the excitement which Fremont and his people felt at the prospect of a voyage on the lake, an undertaking which had never before been accomplished.

The morning of the 8th was occupied in preparing for a voyage to one of the islands which had attracted

their particular attention, and especially in making such additions to the boat as would lessen the danger in case they should meet with rough weather. The 9th was clear and calm, the thermometer at sunrise standing at 49 deg. As was usual with the trappers on the eve of any enterprise, Fremont's people had made dreams, and theirs happened to be such, as with superstitious minds, always preceded evil, and consequently they looked very gloomy, but nevertheless hurried through their breakfast, in order to make an early start, and have the whole day before them for the adventure. The channel of the river became by degrees so shallow, that navigation was at an end, it being merely a sheet of mud with a few inches of water, and sometimes none at all, forming the low-water shore of the lake. This place was absolutely covered with flocks of screaming plover. The men took off their clothes, and getting overboard, commenced dragging the boat, leaving behind them a very curious trail, whilst the stench from the disturbed mud into which they sank above the knee at every step was most disagreeable. After proceeding in this way about a mile, they came to a small black ridge on the bottom, beyond which the water became suddenly salt, beginning gradually to deepen, and the bottom was sandy and firm. It was a remarkable division, separating the fresh waters of the river from the briny water

of the lake, which was entirely saturated with common salt. Pushing their little vessel across the narrow boundary, they sprang on board, and at length were afloat on the waters of the unknown sea.

They did not steer for the mountainous islands, but directed their course towards a lower one, which it had been decided should first be visited, the summit of which was like the crater at the upper end of Bear River valley. So long as the bottom could be touched with the paddles they were very gay; but gradually, as the water deepened, they became more still in their frail vessel of gum cloth distended with air, and with pasted seams. Although the day was very calm there was a considerable swell on the lake, and there were white patches of foam on the surface, which were slowly moving to the southward, indicating a set of a current in that direction, and recalling the recollection of the whirlpool stories. The water continued to deepen, the lake becoming almost transparently clear, of an extremely beautiful bright green color; and the spray which was thrown into the boat and over the clothes, was directly converted into a crust of common salt, which covered hands and arms. "Captain," said Carson, who for some time had been looking suspiciously at some whitening appearances outside the nearest islands, "What are those yonder? Won't you just take a look with the glass?" Paddling

ceased for a moment, and Fremont found them to be the caps of the waves, that were beginning to break under the force of a strong breeze coming up the lake.

The form of the boat seemed to be an admirable one, and it rode on the waves like a water bird, but at the same time it was extremely slow in its progress. When they were a little more than half way across the reach, two of the divisions between the cylinders gave way, and it required the constant use of the bellows to keep in a sufficient quantity of air. For a long time they scarcely seemed to approach the island, but they gradually worked across the rougher sea of the open channel into the smoother water under the lee of the island and began to discover, that what was taken for a long row of pelicans, ranged on the beach, were only low cliffs whitened with salt by the spray of the waves. About noon they reached the shore, which was a handsome broad beach, behind which the hills, into which the island was gathered, rose somewhat abruptly, a point of rock at one end sheltering a bay. Here they landed, and as there was an abundance of drift wood along the shore, it offered a pleasant encampment. The fragile boat was not allowed to touch the rocks, but after discharging the baggage, it was lifted gently out of the water, and carried to the upper part of the beach, which was composed of very small fragments of rocks.

Among the successive banks of the beach formed by the action of the waves, their attention was particularly attracted by one, nineteen or twenty feet in breadth, of a dark brown color. On examination this was found to be composed, to the depth of ten or twelve inches, entirely of the larvæ of insects, about the size of a grain of oats, which had been washed up by the waters of the lake. Alluding to this afterwards, in conversation with Mr. Joseph Walker, an old hunter, Fremont was informed by him, that, wandering with a party of men in a mountain country east of the great Californian range, he surprised a number of Indian families encamped near a small salt lake, who abandoned their lodges at his approach, leaving everything behind them. As Walker and his men were in a starving condition, they were delighted to find, in the abandoned lodges, a number of skin bags containing a quantity of what appeared to be fish, dried and pounded. On this they made a hearty supper, and were gathering round an abundant breakfast of the same material the next morning, when Mr. Walker discovered that the whole mass was composed of these worm larvæ. The stomachs even of these stout trappers were not proof against their prejudices, and the repulsive food was suddenly rejected. Mr. Walker had further opportunities of seeing these worms used as an article of food, and Fremont was

inclined to think they were the same as those which he had found on the island beach.

The cliffs and masses of rock along the shore were whitened by an incrustation of salt, wherever the waves dashed up against them; and the evaporating water, which had been left in holes and hollows on the surface of the rocks, was covered with a crust of salt about one-eighth of an inch in thickness. It appeared strange that, in the midst of that grand reservoir, one of their greatest wants had been salt. Exposed to be more perfectly dried in the sun, it became very white and fine, having the usual flavour of very excellent common salt, without any foreign taste;* but only a little was collected for present use, as there was in it a number of small black insects.

Carrying with them the barometer and other instruments, they ascended to the highest point of the island—a bare rocky peak 800 feet above the lake. Standing on the summit, they enjoyed an extended view of the lake, enclosed in a basin of rugged mountains, which in many places rose directly from the water's edge with bold and precipitous bluffs. Following with the glasses the irregular shores, they searched for some indications

* Salt is now largely manufactured, by evaporation, at Great Salt Lake, and is sent from thence to all parts of the United States.

of a communication with other bodies of water, or the entrance of other rivers; but the distance was so great that nothing could be made out with certainty. To the southward, several peninsular mountains, 3000 or 4000 feet high, entered the lake, appearing, so far as the distance and their position enabled them to determine, to be connected by flats and low ridges with the mountains in the rear. Those were probably the islands usually indicated on maps of that region as entirely detached from the shore. As the season of their operations was when the waters were at their lowest stage, Fremont thought it probable that, at the season of high waters in the spring, the marshes and low grounds were overflowed, and the surface of the lake considerably greater. In several places the view was of unlimited extent, here and there a rocky islet appearing above the water at a great distance, beyond which everything was vague and undefined. Looking over the vast expanse of water spread out beneath them, and straining the eyes along the silent shores over which hung so much doubt and uncertainty, and which were so full of interest, he could hardly repress the almost irresistible desire to continue the exploration; but the increasing snow on the mountains was a plain indication of the advancing season, and their frail linen boat appeared so insecure that he was unwilling to risk the lives of his people. He, therefore, unwillingly resolved to terminate the

survey there, and remain satisfied with what they had been able to add to the unknown geography of this singular region. They also felt pleasure in remembering that they were the first, who, in the limited annals of the country, had visited the islands, and had broken, with the cheerful sound of human voices, the long solitude of the place.

The boat in which this voyage was made is preserved in the museum at Salt Lake City, where it is called "Kit Carson's Boat," and an inspection of it affords unquestionable evidence of the indomitable pluck shown by Fremont and his companions in their long and adventurous expedition. He made no attempt then to penetrate any further into the Great Basin, but, returning on his tracks to the Bear River valley, he crossed the range on its western side to the Columbia trail, which he followed to Fort Vancouver. Whilst there he determined to visit the Sacramento and San Joaquim valleys, and from thence across the desert to the Great Salt Lake, before returning to the Missouri. In order to accomplish this, he was compelled to cross the dividing range between the Columbia and the Great Basin, and to travel down its western edge to Tlamath Lake, which lies on the eastern side of the Sierra Nevada, and from thence along the western edge of the basin, until he found some suitable point from which he could pass over to the western side of the Sierra. The

enterprise was a serious one to undertake at the beginning of winter, with a party of twenty-five persons only, composed of men of many nationalities—American, French, German, Canadian and Indian,—most of them young and some even under the age of twenty-one years. But amongst his party were some of the most famous "mountain men" known in the history of the trappers,—Kit Carson, Godey, Lajeunesse, Tabean and others, tried men and "Indian fighters" of the first rank, and who proved, during the adventurous journey which they were about to undertake, their capacity to meet danger and difficulty with an ever increasing determination to overcome them.

They left the valley of the Columbia on the 25th November, and, after encountering much hardship—their journey being often, for days together, through pine forests which afforded but little sustenance for their horses,—they reached Tlamath Lake on the 10th December. This proved to be a picturesque spot, rendered all the more attractive by an abundance of excellent grass, which was much needed for their animals. The character for courage and hostility attributed to the Indian inhabitants of the country around the lake had induced much caution on the part of Fremont and his people, but although they were satisfied, from the occurrence of signal smokes in various directions, that their encampment had become known to the Indians, it was not

visited by any of them during the day of their arrival. Seeing this, and that their journey from that point would take them through entirely unknown regions, Fremont determined, if possible, to obtain Indian guides, and for that purpose to visit some of their villages, one of which was observed in some low ground on the edge of the lake, which was evidently covered with water during the wet season. Accordingly, he collected his people and rode out towards the village, which was composed of huts, on the tops of which the Indians were collected. When they had arrived within half a mile of the village, two persons were seen advancing towards them, who proved to be the chief and his wife, who, in excitement and alarm at the unusual event and the formidable appearance of the strangers, had come out to meet their fate together. The chief was a very prepossessing looking man, with handsome features and a singularly soft and agreeable voice, and he and his wife were soon reassured as to the intentions of the strangers. On reaching the village they found the huts grouped together near the bank of a river which flowed from the lake. The huts were circular, and about twenty feet in diameter, with rounded tops, supported from the inside by beams and posts. They were entered by a door placed on the top, from which the people descended into the interior. Their only means of subsistence appeared to be a small fish, great quantities

of which, strung and smoke dried, hung in festoons about the interior of the huts. They were very skilful in the manufacture of mats from the grass and rushes which grew in abundance round the village. Their shoes were made of grass and seemed well adapted for a snow-clad country, and the women wore on their heads closely woven baskets, which made very neat and serviceable head coverings. Unlike any other Indians that Fremont had met with, they wore shells in their noses, but he does not say what shells they were. They had numbers of singular looking dogs, resembling wolves, which sat on the tops of the huts. It was with great difficulty he was able to make them understand his desire to be informed of the nature of the country to the southward, their language being quite different from that of the Shoshone and Columbia River tribes.

He left Tlamath Lake on the 13th December, and on the 10th January, after having endured in the meantime a good deal of hardship, discovered Pyramid Lake, which lies at the eastern foot of the Sierra, about fifty miles to the northward of the line of the Central Pacific Railway. On reaching the summit of a mountain pass on the line of his route, which was very much encumbered with snow, he found a defile descending rapidly on the other side for about two thousand feet, beyond which stretched a sheet of water some twenty miles broad. It broke upon their eyes like an ocean.

Waves were curling in the breeze, and their dark green color showed that the water was deep. At its western end it communicated with the line of basins over which they had lately been travelling, and on the opposite side it swept a ridge of snowy mountains forming part of the great Sierra. It was an unknown body of water, lying at an elevation of 4890 feet above sea level, and, therefore, nearly 700 feet higher than the Great Salt Lake. It was the nearest lake to the western rim, as the Great Salt Lake is to the eastern rim of the Great Basin. Its most striking feature, that indeed which suggested the name given to it, was a remarkable rock, near the centre of the lake, in the exact form of a pyramid, and about 600 feet above the level of the water. All the streams flowing into this lake were stocked with magnificent salmon trout, and the Indians who resided on its banks were sleek and fat, and appeared to lead an easy and happy life. It was from this point that Fremont determined to cross the Sierra into the valley of the Sacramento, an enterprise of no ordinary difficulty and danger, as will be seen from the next chapter.

CHAPTER V.

Crossing the Sierra—Indian Visitors—Death of the Dog—Summit of the Pass—Great Cold and Suffering—Rio de Los Americanos—New Helvetia—The San Joaquim—The Desert—Indian Attack upon a Spanish Party—Summary Punishment—Kit Carson and Godey's Exploits—Sufferings in the Desert.

In order to understand the serious nature of the enterprize in which Fremont and his party were about to engage, we have to consider that the season was the most inclement of the year, that men and horses alike had already suffered much during their long journey from the Columbia, and that the difficulty of obtaining food in a mountain district was rendered still greater by the fact, that the whole range was then covered with snow to its very base on the eastern side. The route followed was, no doubt, approximately that which has since been selected for the Central Pacific Railway, and the description which I have already given of that route, and the physical character of the Sierra, are of themselves sufficient to shew the hazardous, if not dangerous nature of the proposed undertaking. Fremont had determined, in the first instance, to follow up the principal course of the affluent of Pyramid Lake, but

after conversing with the Indian Chiefs, he abandoned this idea and favoured a more southern route. He left Pyramid Lake on the 16th January, and on the 22nd he and his party found themselves at the foot of the mountains, in the valley of a stream having large branches, one of which flowed along the base of the foot-hills of the main range, and the other from the mountains to the south east. He encamped at the fork of these streams, where he found good grass for the horses, his camp being, by observation, 5020ft. above the sea level. It was evident that, up to this point, they had been flanking the Sierra ever since leaving Summer Lake, and that the continued succession and almost connexion of lakes and rivers, which they had encountered, were the drainings of that range. On leaving this camp they moved along the course of the south east branch of the river, in the hope that it might lead to an easy pass across the mountains, which had been reported to Fremont before he left Vancouver, but in this hope, as will be seen, they were destined to be grievously disappointed.

On the 24th they fell in with an Indian, who had with him, in a skin bag, a few pounds of the seeds of the Pinus monophyllus, now commonly known as the nut pine. The nut, though oily, was of agreeable flavour, and formed no mean portion of their subsistence during their stay in the mountains. On the 25th they

practically commenced the ascent, and speedily found themselves above the snow line, the snow deepening as they advanced. The mountain they were on, however, did not prove to be the main range of the Sierra, for on reaching a saddle, which they had taken for the water-shed,t hey saw a valley below them on the other side, beyond which the mountains rose higher still, one ridge above another, and presenting a rude and rocky outline. They descended to the valley and encamped, the snow being from three to four feet in depth. As the day had been warm, their mocassins had become wet with melting snow, and when the sun began to decline, the cold suddenly became very great, and they had much difficulty in keeping their feet from freezing. Fremont had a small quantity of brandy with him, which he had treasured with much care, and which he found, on this occasion and afterwards, of very great value. In the morning the thermometer was 2deg. below zero, but, as there was good grass below the snow, his people remained encamped for the day, while he himself, with Carson and Preuss, made a reconnaissance of the ground to be gone over on the following one. From the 26th to the 30th they gradually ascended to a higher level, their march being entirely through snow, but the animals were still able to obtain a fair quantity of grass below it. On the 30th they reached an upland valley. After the camp

had been formed it was visited by some Indians, who satisfied Fremont that he was still at a considerable distance from the watershed of the main range. He explained to them that he wished to cross the range into the valley of the Sacramento, and desired to engage them as guides, offering them in payment presents of scarlet cloth and other articles, which possessed great attraction for the Indians, but, although much tempted, they absolutely refused to accompany him beyond a certain point to the southward, from whence they told him, that at the end of one day's travel he would find other Indians, living near a pass, who could furnish him with a guide. The Indians had brought with them a considerable quantity of the pine nuts, which Fremont purchased and which formed a welcome addition to his stock of provisions. He learnt from these people that during the most rigorous part of the winter these nuts formed their chief and often only means of subsistence.

On the 13th February the ascent of the main range was commenced. By observation it was soon found that they could not be more than 70 miles in a direct line from Captain Sutter's settlement. This was explained to the men, whom Freemont then called upon to make an effort to cross the mountains, which, if successfully accomplished, would put an end to their hardships and troubles. They accepted this decision

with cheerfulness, and that day was passed in preparations for this arduous work. Legging mocassins, clothing, all was put into the best state possible to resist the cold. Their provisions were very low; they had no grease or tallow of any kind, and the want of salt was being seriously felt. A dog which they had found, months before, in the Bear valley, and which had become fat, was killed, and when the meat was laid out on the snow it looked good, and, with a couple of rabbits brought in by the Indians who had accompanied him to this point, made a strengthening meal for the whole camp, which had been living chiefly on pine nuts for several days. On the 2nd the weather was clear, and the clouds which had rested on the higher peaks began to disperse before the sun. But the prospect was far from inviting, and the people were unusually silent as they proceeded to ascend, still higher, into the deep snows which lay on the flanks of the mountains. On their way up they discovered two Indian huts, so completely covered with snow, that they might easily have escaped observation. There was a family living in each, but the only trail in the neighbourhood was to a clump of the nut pine, from which each family apparently obtained its means of subsistence. On this day Fremont and his party travelled sixteen miles, and reached an elevation of 6,760 feet, the nut pines there giving way to heavy timber. They had been

compelled, several times during the day, to break a road through heavy snow drifts, for which service a party of ten was formed, mounted on the strongest horses, each man in succession opening the road on foot or on horseback, until himself and his horse became fatigued, when he stepped aside and another took his place. On the following day they only made seven miles, having been compelled to open much of the road by the above means, a course which caused much fatigue and suffering both to the men and animals. They camped near some springs round which was a little grass, but the majority of the horses were sent to a spot four or five miles back, where the baggage had been left, and a better supply of grass had been seen. On the 4th their hardships had increased very seriously, and the Indian guide, whom they engaged at the foot of the ascent, pointing to the summits of the range, which were then visible, began to harangue them in a loud voice, saying that if they attempted to proceed they and their animals would perish in the snow. With the aid of signs he was able to make them comprehend his simple ideas. "Rock upon rock, rock upon rock, snow upon snow, snow upon snow; even if you get over the snow, you will not be able to get down the mountains on the other side, which are densely covered with timber."

The night of the 4th had been too cold to allow the people to sleep and they were up early. Their guide had deserted them, having evidently made up his mind not to risk his life by proceeding further, his bad faith and treachery being in perfect keeping with Indian character. Whilst some of the men were engaged in bringing up the horses and baggage, others were busy in preparing snow shoes and sledges, Fremont himself having determined to explore the mountains ahead. This he did, accompanied by Kit Carson and Mr. Fitzpatrick and a reconnoitring party on snow shoes. After a laborious march of ten miles they reached the top of a peak to the left of the pass, from which, far below them and dimmed by distance, they saw a large snowless valley, beyond which, nearly 100 miles away, was a range of mountains, which Carson at once recognized as the coast range, lying between the valley of the Sacramento, and the Pacific. "There," said he, is the little mountain; it is fifteen years since I saw it, but I am as sure of it as if it was only yesterday." Below them lay, as they believed, the valley they were seeking, and which they looked upon with a degree of delight only conceivable in persons who had suffered the terrible hardships which they had undergone and were still enduring.

Fremont and the reconnaissance party returned to camp the same day, and on the morrow, all their

energies were directed to crossing the saddle. They supposed that, after the baggage had been drawn over the trail made by their advance on the previous day, the snow passed over would be sufficiently hard to bear the animals. Its general depth was from five to six feet, but many places occurred where it was upwards of twenty, and as both horses and men were almost exhausted from want of food and rest, the difficulty of passing over this part of the journey was necessarily very great indeed. But a severe gale arose which continued from the 9th to the 13th, the driving snow continually obliterating the tracks which were made by the advance parties, notwithstanding they had beaten down the surface with mauls constructed for the purpose. They had already subsisted for some days solely upon the flesh of the weaker horses, which they had been compelled either to kill or abandon, but on the 13th the supply gave out and they were reduced to killing a little dog—of the peculiar breed mentioned in the account of the Indian village at Tlamath Lake,—which had accompanied them so far.

It was not till the 20th, after a daily repetition of similar hardships, that they succeeded in reaching the summit of the pass, which by boiling water observation was found to be 9,350 feet above sea level, and 2000 feet above the south pass on the Rocky Mountains. It is not necessary to follow them in their descent from this

point, which was attended with severe labour and suffering, not lessened by their disappointment on finding, when they reached the valley below, that it was that of the Rio de Los Americanos, and so densely timbered, as to require eight days of hard travel before they reached Captain Sutter's settlement, at New Helvetia, where they were received with the utmost hospitality and kindness, and were enabled to recruit before commencing their further long and arduous return journey to Saint Louis.

Captain Sutter's settlement consisted of a large tract of land, of which he had obtained a grant from the Spanish Government. He had, at first, experienced some trouble with the Indians, but by the exercise of well-timed authority, had succeeded in converting them into a peaceable and industrious people. The ditches around his extensive wheat fields, the making of the sun-dried bricks of which his fort was constructed, the ploughing, harrowing and other agricultural operations, were entirely the work of these Indians, for which they received a very moderate compensation, principally in shirts, blankets, and other articles of clothing. In the same manner, on application to the chief of a village, he readily obtained as many boys and girls as he had any use for. There were at the time of Freemont's visit a number of girls at the fort in training for a future woollen factory, but they were then all busily engaged

in constantly watering the gardens, which the unfavorable dryness of the season had rendered necessary. The occasional dryness of some seasons was the only complaint of the settlers in the valley, as it sometimes rendered the crops uncertain. Mr. Sutter was about making arrangements to irrigate his lands by water from the Rio de Los Americanos. He had in that year sown, and altogether by Indian labour, 300 fanegas of wheat.

A few years previously the neighbouring Russian establishment of Ross being about to withdraw from the country, sold to him a large number of stock, with agricultural and other stores, with a number of pieces of artillery and other munitions of war, for which a regular yearly payment was made in grain.

The fort was a regular *adobe* structure, mounting twelve pieces of artillery, two of them brass, and capable of admitting a garrison of one thousand men; at the time of Fremont's visit the garrison consisted of forty Indians in uniform, one of whom was always found on duty at the gate. As might naturally be expected, the artillery was not in very good order. The whites in the employment of Captain Sutter, American, French, and German, amounted to about thirty men. The inner wall was formed into buildings, comprising the common quarters, with blacksmiths' and other workshops, the dwelling house, with a large

distilling house and other buildings, occupying more the centre of the area.

The fort was built close to a pond-like stream, at times a running creek, communicating with the Rio de Los Americanos, which enters the Sacramento two miles below; the latter was there a noble river about 300 yards broad, deep and tranquil, with several fathoms of water in the channel, and its banks continuously timbered. There were two vessels belonging to Captain Sutter at anchor near the landing, one a large two-masted lighter, and the other a schooner, which was shortly to proceed on a voyage to Fort Vancouver for a cargo of goods.

Since his arrival, several other persons, principally Americans, had established themselves in the valley. Mr. Sinclair, from whom Fremont experienced much kindness during his stay, was settled a few miles distant, on the Rio de Los Americanos. Mr. Coudrois, a gentleman from Germany, had established himself on Feather River, and was associated with Captain Sutter in agricultural pursuits. Among other improvements, they were about to introduce the cultivation of rape-seed (*brassica rapus*), which they had every reason to believe was admirably adapted to the climate and soil. The lowest average produce of wheat, as far as was then known, was 35 fanegas for one sown; but, as an instance of its fertility, he was informed that Senor

Valego obtained on a piece of ground where sheep had been pastured, 800 fanegas for eight sown; but, as the produce varied a good deal according to locality, no very correct idea of the average could be formed.

An impetus had been given to the active little population by Fremont's arrival, as his party were in want of everything. Mules, horses, and cattle had to be collected; the horse mill was at work day and night, to make sufficient flour; the blacksmith's shop was put in requisition for horse shoes and bridle-bits; and pack saddles, ropes, and bridles and all other little equipments of the camp were again to be provided. The delay thus occasioned was one of repose and enjoyment, which their situation required, and, anxious though they were to resume their homeward journey, was regretted by no one.

Fremont left New Helvetia on the 24th March. His direct course home was nearly due east, which, however, at that season of the year was impossible, and, there being no opening the westward, they were necessarily forced south for upwards of 500 miles, to a pass at the head of the San Joaquim River. This pass, reported to be good, was discovered by the Mr. Joseph Walker who has already been mentioned, and whose name was afterwards given to it. To reach it, the course lay along the valley of the San Joaquim, the river on the right, and the lofty wall of the impassable Sierra on

the left. From that pass Fremont was to move south-eastwardly, having the Sierra then on the right, and so reach the "*Spanish Trail*," deviously traced from one watering place to another, which constituted the route of the caravans from Pueblo de Los Angeles to Santa Fe in New Mexico. From the pass to this trail was 150 miles. Following that trail through a desert, relieved by some fertile plains,—indicated by the recurrence of the term *vegas*,—until it turned to the right to cross the Colorado, the course would be north east, until they reached the latitude of Utah Lake, and from thence to the head of the Arkansas in the Rocky Mountains. This course of travelling, forced upon them by the structure of the country, would occupy a computed distance of 2000 miles before they reached the Arkansas. Not a settlement existed throughout the whole route, and the names of places along it being all Spanish or Indian indicated that it had been but little trodden by American feet. Though long and beset with hardships, this route presented some points of attraction, in that it involved tracing the Sierra Nevada from New Helvetia to Walker's Pass, turning the Great Basin, and perhaps crossing its rim on the South, and so completely solving the problem whether any river, except the Colorado, flowed to the sea direct from the Rocky Mountains through that part of the continent. They would also examine the southern extremity of the Great Salt Lake,

of which they had visited the northern part the year before. During this journey up the San Joaquim valley, he learned that the Indians of the Sierra still made frequent descents upon the Spanish settlements on the western side of the coast range, which they kept constantly swept of horses, and to which they were guided by refugees from the missions ; and that, although parties of soldiers occasionally followed the incursionists across the coast range, they never entered the Sierra. Whilst he was encamped near the great feeder of Tulare Lake, he was visited by a party of about 50 Indians, who had come to see him from a village not far distant. He made them some small presents, for which they gave him in return otter skins, many kinds of fish, and bread made of acorns. Amongst them he found several who had formerly resided at the missions, but had left when these were broken up. They told Fremont that they were called by the Spaniards, Mansitos (tame), in distinction from the wilder tribes of the mountains, but they appeared to feel themselves very insecure, not knowing at what moment the sins of the wild tribes might be visited upon them. In the present state of the valley of San Joaquim and of the surrounding country, it would be difficult to believe, but for the parallel afforded by some of the Australasian colonies, that such a condition of things as Fremont describes, could have existed there only 45 years ago. They reached the

eastern side of Walker's Pass on the 9th April. The valley on its western side was even then very rich, and is now highly cultivated, forming in effect one of the most beautiful tracts of country in California. On the eastern side all was different, for after crossing a low spur near the end of the valley which led to the foot of the mountains, the desert came into view, apparently illimitable in extent. A hot mist floated over it, through which it had a white and glistening appearance, a few dry looking "Buttes" and isolated black ridges rising suddenly upon it. "There," said their guide, stretching his hands towards it, "are the great llanos: no hay agua, no hay zacate, no hay nada, (there is neither water nor grass, nor anything else) every animal that goes upon them dies." It was indeed a dismal prospect, and it appeared hard to believe that so great a change could have taken place in so short a distance. No part of the world could produce a valley more verdant and fresh, more alive with birds and animals, than that of the San Joaquim, and yet within a few miles of it they found a vast desert spread before them, from which the boldest traveller might well have turned away in despair.

Their cavalcade presented a strange and grotesque appearance; guided by a civilized Indian; attended by two wild ones from the Sierra; a Chinook from the Columbia; their own mixture of nationalities; all armed; four or five languages all heard at once; above

a hundred horses and mules half wild; American, Spanish and Indian dresses and equipments intermingled; scouts ahead and on the flank; a front and rear division; the pack animals, baggage and horned cattle in the centre; the whole, stretching a quarter of a mile along the dreary track, gave to the party an almost Asiatic rather than an American appearance, so strictly was it in keeping with the wild and desolate character of the scene. The vegetation, too, was weird and strange, huge Yuccas and Cactuses, and a Zygophyllaceous shrub, with leaves covered with a resinous substance, being prominent, whilst the brilliant orange colored Escholtzia (or Californian poppy) and many other bright flowers gave relief to the otherwise desolate appearance of the country. On the 18th they reached the object of their search—the Spanish trail,—which, at the point where they struck it, ran directly north. From this point they had six degrees of latitude to make, in order to regain that on which they wished to cross the Rocky Mountains. As their animals had suffered much in the journey from the pass, and they knew that between them and the Great Salt Lake the country was poor in grass and deficient in water, they rested here until the 22nd. The line of route they were about to take was marked by the bones of horses and mules which had perished in attempting the same journey, and they felt the importance of

resuming their march with fresh and vigorous animals. It was strange, too, that, although they had met people in California who had passed over this trail, they had not been able to obtain any correct information about it, and soon found that what had been told them was quite inaccurate. The rivers they actually found had not been mentioned, whilst others which had been specially described by name and locality did not exist in the part of country to which they had been assigned. The road, which had been described as tolerably good and sandy, with so little rock as scarcely to require the animals to be shod, turned out to be the rockiest they had ever travelled, and very nearly destroyed their band of mules and horses. So bad, indeed, did it prove to be, that on the 24th some of the horned cattle had already become so tired and poor, that they were compelled to kill them and dry the meat. Whilst thus employed, they were surprised by the sudden appearance in the camp of two Mexicans, a man named Fuentes and a boy, the latter a handsome lad only eleven years old. They had belonged to a party of six, the remaining four having been the wife of the man, the father and mother of the boy, and a man named Giacomo Santiago, a resident of New Mexico. They had left Pueblo de Los Angeles on the coast, with thirty horses, under the guidance of Giacomo, in advance of a great caravan which every year travelled from the coast

settlements to Santa Fe. Having penetrated the desert as far as they thought consistent with safety, they halted at the Archilette, one of the usual camping grounds, about eighty miles from Fremont's camp, where there was sufficient grass for the animals and a good spring of water. Some Indians had been seen lurking about their camp, who in a day or two came in, and, after behaving in a very friendly manner, took their leave without having awakened any suspicion. Soon afterwards, however, a party of about 100 Indians appeared in sight, advancing towards the camp. It was either too late, or they had not the presence of mind to take proper means for safety, and the Indians charged down upon them, firing volleys of arrows. The man and boy who escaped were on horse guard at the time, and succeeded in driving many of the horses through the assailants, and made off at full speed across the plain, leaving the other members of the party to their fate. They continued their flight for nearly sixty miles without a halt, and then leaving the animals at a watering place on the trail called the Agua de Tomaso, hurried on in the hope of meeting the Spanish Caravan, and thus discovered Fremont's camp. He received them kindly and promised them whatsoever aid it might be in his power to give. On the 26th his party reached the Agua de Tomaso, and found that the animals which had been

left there were gone, whilst abundant indications showed that they had been driven off by the Indians. Kit Carson and Godey agreed to join the Mexican in pursuing them, and being well mounted, the three set off on the trail. In the evening the Mexican returned, his horse having given out, but Carson and Godey had continued the pursuit. The next day, whilst Fremont and his people were encamped near a pool, fed by a spring which had been dug out either by Indians or travellers, a war-whoop was heard, such as Indians make when returning from a victorious enterprize, and soon afterwards Carson and Godey appeared, driving before them a band of horses, which the Mexican recognised as part of those which he had left at Agua de Tomaso. Two bloody scalps, dangling from Carson's gun, shewed that they had overtaken the Indians as well as the horses, and their story of their adventure, as told to Fremont, is characteristic of the daring of the men and of the species of warfare carried on at that time between the mountain men and the Indians. "They informed us," says Fremont, "that after Fuentes left them, from the failure of his horse, they continued the pursuit alone, and towards nightfall entered the mountains, into which the trail led. After sunset the moon gave light, and they followed the trail by moonshine until late in the night, when it entered a narrow defile and was difficult

to follow. Afraid of losing it in the darkness of the defile, they tied up their horses, struck no fire and lay down to sleep in silence and in darkness. Here they lay from midnight till morning. At daylight they resumed the pursuit, and about sunrise discovered the horses; and immediately dismounting and tying up their own, they crept cautiously to a rising ground which intervened, from the crest of which they perceived an encampment of four lodges close by. They proceeded quietly, and had got within thirty or forty yards of their object, when a movement among the horses discovered them to the Indians. Giving the war shout, they charged instantly into the camp, regardless of the number which the four lodges would imply. The Indians received them with a flight of arrows shot from their long bows, one of which passed through Godey's shirt collar, barely missing the neck. Our men fired their rifles upon a steady aim, and rushed in. Two Indians were stretched on the ground, fatally pierced with bullets; the rest fled, except a lad that was captured. The scalps of the fallen were instantly stripped off; but in the process, one of them, who had two balls through his body, sprung to his feet, the blood streaming from his skinned head and uttered a hideous howl. An old squaw, possibly his mother, stopped and looked back from the mountain side she was climbing, threatening and lamenting.

The frightful spectacle appalled the stout hearts of our men, but they did what humanity required, and quickly terminated the agonies of the gory savage. They were now masters of the camp, which was a pretty little recess in the mountain, with a fine spring and apparently safe from all invasion. Great preparations had been made to feast a large party, for it was a very proper place for a rendezvous and for the celebration of such orgies as robbers of the desert would delight in. Several of the best horses had been killed, skinned, and cut up: for the Indians living in mountains, and only coming into the plains to rob and murder, make no other use of horses than to eat them. Large earthen vessels were on the fire, boiling and stewing the horse beef, and several baskets, containing fifty or sixty pairs of moccasins, indicated the presence or expectation of a considerable party. They released the boy, who had given strong evidence of the stoicism or something else of the savage character, in commencing his breakfast upon a horse's head as soon as he found he was not to be killed, but only tied as a prisoner. Their object accomplished, our men gathered up all the surviving horses, fifteen in number, returned upon their trail, and rejoined us at our camp in the afternoon of the same day. They had ridden about 100 miles in the pursuit and return, and all in about 30 hours. The time, place, object and numbers considered, this expedition

of Carson and Godey may be considered amongst the boldest and most disinterested which the annals of western adventure, so full of daring deeds, can present. Two men, in a savage desert, pursue day and night an unknown body of Indians into the defiles of an unknown mountain, attack them on sight without counting numbers, and defeat them in an instant—and for what? To punish the robbers of the desert, and to avenge the wrongs of Mexicans whom they did not know. I repeat: it was Carson and Godey who did this, the former an American, born in the Boonslick county of Missouri; the latter a Frenchman, born in St. Louis, and both trained to western enterprise from early life."

On the 29th, after having traversed a most sterile and repulsive part of the desert, they reached the Archilette, where the Mexican party had been attacked. The prominent features of the route to this place had been dark sierras, naked and dry, and on the plains a few straggling plants, of which the cactus was the most abundant. The Archilette itself was a grassy spot, on which a considerable number of willows grew, surrounding some springs which caused its fertility, and constituted the only camping ground within many miles. The perfect silence of the place was ominous; and on riding up they found the dead bodies of the two men, naked, mutilated and pierced with arrows.

Of the women there was no trace and they had evidently been carried off captive. A little lap-dog, which had belonged to the boy's mother, had remained with the dead bodies, and was frantic with joy on seeing him, while he, poor child, filled the air with lamentations for his dead father and mother. When Fremont and his people saw this pitiable sight, and pictured to themselves the fate of the two women carried off by savages so brutal and loathsome, all pity for the scalped-alive Indian ceased, and they rejoiced that Carson and Godey had been able to give so useful a lesson to savages who could lie in wait to plunder and murder innocent travellers. On the 4th May, after enduring terrible hardships, they reached a rapid stream flowing to the southward, which proved to be the Santa Clara fork of the Rio Virgen. "Travellers," says Fremont, "through countries affording water and timber, can have no conception of the intolerable thirst whilst journeying over the hot yellow sands of this elevated country, where the heated air seems to be entirely deprived of moisture. We ate occasionally the Bisnada, a plant which has a juicy pulp, slightly acid, and which is eaten by the travellers to allay thirst, and moistened our mouth with the acid of the sour dock *(Rumex venosus)*. Hourly expecting to find water we had pressed on, until towards midnight after a hard and uninterrupted march of sixty miles, our mules, whose

sense of smell is extremely keen in these desert regions, began running ahead, and in a mile or two brought us to a bold, running stream."

There they encamped for two or three days, in order to recruit their nearly exhausted animals, and were unfortunate enough to lose Tabeau, one of their best men, who was killed by the Indians whilst riding back on the track in search of a lame horse, an event which spread a gloom over the whole party. On the 12th May they reached the head waters of the Sevier River, flowing northwardly into the lake of the same name. This lake no longer exists as a lake, the waters of the river having all been abstracted by the Mormon settlers on its banks, for the purpose of irrigating the adjacent country which they now occupy, but when Fremont saw it in 1844, it was a handsome sheet of water. He reached it about the 13th May, and a few days afterwards made Utah Lake, and thus accomplished the undertaking he had in view when he left the Dalles of the Columbia, nearly six months before. In speaking of Utah Lake he says that it was a lake of note under the dominion of the Utah Indians, who resorted to it for fish, and that it was believed to be connected with the Great Salt Lake. "This," he says, "is the report, which I believe to be correct; but it is fresh water whilst the other is salt, and here is a problem which erquires to be solved." But whilst he had thus examined

the skirts of the Great Basin its interior had still to be explored, a task which has not even yet been fully accomplished, and which can only be carried out by a large expenditure of energy, and an amount of labour and suffering which few are either willing or able to undergo.

CHAPTER VI.

OGDEN — SALT LAKE CITY — THE MORMON MIGRATION TO UTAH — HISTORY OF THE SUPERSTITION.

AFTER breakfasting at Truckee on the morning of the 13th June, my train resumed its journey to Salt Lake City. At Reno, which is the last town on the route between Truckee and Ogden, it halted for nearly half an hour, but there is nothing of interest to be seen there. It stands at the very entrance to the Great Desert, and the country around was dry and parched, holding out but little prospect of comfort during the journey to Ogden. About fifty miles from Reno we struck the Humboldt River, leaving the lake into which it flows, on our right hand. The Humboldt is the most considerable river within the area of the Great Basin. Until the construction of the Central Pacific line was undertaken, it was scarcely known to any but the trappers and hunters who wandered about the range of mountains between it and the sources of the Snake River branch of the Columbia, by whom it was known as the Saint Mary or Ogden, the name which it now bears having recently been

given to it by the Americans, in compliment to the Nestor of scientific travellers. It has two branches, which have their sources in a range of mountains to the west of the Great Salt Lake, and which unite after a course of about sixty miles. The river after running nearly parallel to and along the whole extent of the northern boundary of the desert, ends in a muddy lake, the borders of which are flat and whitened by saline incrustation. As it advances it loses much of its volume by evaporation, and during the summer season it rarely exceeds six feet in depth, but along its banks are deposits of alluvium, formed during floods, and which are cultivated by the settlers established along the line of the railway. There is no obstacle to its course for three hundred miles from the junction to the lake, and the construction of the Central Pacific Railway, therefore, involved but little work beyond the bridges necessary for crossing the river at Oreana, Peko, Deeth and Wells. Until this work was undertaken the line of the river served as the route for emigrants from the Eastern States to Upper California, and before the systematic settlement of that part of the country had been commenced, its valley was the *rendezvous* of the trappers, *voyageurs* and agents of the great fur companies, who used to spend part of the winter there. Now, these "hardy children of the desert" pitch their tents in the valleys to the north-

ward, whose streams go to swell the waters of the Columbia. We struck the river between Granite Point and Oreana, and it was more or less constantly in sight from thence until we left it at Wells. The weather during the journey was almost calm and extremely hot, the thermometer inside the cars ranging between 80deg. and 85deg. Fahrenheit. It was indeed fortunate that there was but little wind, as we were able to keep the windows of the cars open. The draught of air, however, was minimized by perforated screens, placed in the open spaces in order to prevent particles of the saline efflorescence which covers the surface of the ground, from finding its way into the eyes of the passengers. When this happens it is attended with acute pain, and there is even danger of the sight being permanently injured.

Nothing can exceed the generally barren character of the country we passed through, even at a very small distance from the actual river course, the only vegetation consisting of the sagebush and stunted shrubs, which are found all over the desert.

Early on the morning of the 14th we came in sight of the Great Salt Lake, which we skirted from Kelton to Ogden, arriving at the latter place at half-past eleven. Ogden owes much of its importance to the circumstance that it is the chief centre of the great railway system between the Atlantic and Pacific. It is the scene of one

of Bret Harte's stirring poems, written in commemoration of the fact that here, in 1869, the junction was formed of the first line of rails connecting these two oceans—

> What the engines said,
> "Pilots touching head to head,
> Facing on a single track,
> Half a continent at each back."

This event was one of great public rejoicing, but since then Ogden has been connected with three of the great lines which now carry on communication between San Francisco and the East. It has been well described as "A big collection of little houses, behind each of which is a pretty little farm and market garden." There is a ledge beyond the main part of the town, upon which are situated the better houses of the city, and from which you can look over the wide plain, with bluffs and ridges in the foreground, a glimpse of the Lake in the middle distance, and a vision of sharp-pointed mountains on the horizon. Ogden is the second city of the Mormon territory, and is evidently destined to become, by force of its position, an important place even in the not distant future: for, besides the large patronage of the railways, it is the market for the great farming and mining district of Southern Idaho, and is directly connected with the extensive gold placers and silver ledges of Montana. We reached Salt Lake City at half-past

one, the heat being excessive. A large extent of the country between Ogden and Salt Lake City is cultivated, the houses and farm buildings lying to the left, at the foot of the mountains, whose slopes are not far distant from the borders of the lake. The land is rich and the number of streams which flow from the mountains have enabled the cultivators to carry out a system of irrigation which materially adds to its productiveness. Nearing Salt Lake City we come upon a patch of sage bush, a remnant of the original desert, but this is soon passed, and the line enters upon one of the suburban streets of the city, in which each of the houses is situated in a garden densely filled with fruit trees and vegetables. Salt Lake City was founded in 1847, by Brigham Young, who with a party of pioneers had left Nauvoo in the previous year, and made their way across the Rocky mountains and through the passes of the Wahsatch to the banks of the Utah River, to which the name of the Jordan has since been given. Having selected a site for the future city they commenced at once to break up the ground for sowing and planting, for they were even then short of provisions, and their very lives depended upon their obtaining a supply before the winter set in. In order to overcome the extreme dryness and hardness of the ground, parched by the long summer's heat, the waters of City Creek Canon were led in channels to the community farm, and thus

began a work which has converted a desert, yielding no food for man, into a district now distinguished by its wealth, beauty and productiveness. Without civilization Utah would still be the barren desert so graphically described by Fremont, and it is not at all improbable that, but for the Mormon settlements, the completion of the great railway system, which now connects the two sides of the continent, would have been long delayed. It must be remembered, too, that at the date of the foundation of the city the territory of Utah was still under the government of Mexico, for it was not until the following year that it, in common with the rest of the country to the north of the present Mexican boundary, was ceded to the United States.

Within a few weeks after their arrival the colonists had built substantial log buildings and forts, and had planted upwards of a hundred acres with wheat, potatoes, etc. Owing to the lateness of the season, however, much of the produce was damaged by frosts, and their difficulties were aggravated by the arrival, in the fall, of some seven hundred waggons laden with people, who had but little left of the provisions with which they had started upon their journey. It was these difficulties which the energy of Brigham Young had to contend against, and which, through that energy, were successfully dealt with. In the following spring a large extent of ground was placed under crop, but a new danger

threatened them, for the young crops were attacked by myriads of the black cricket and the people were almost in despair, when relief came in the shape of immense flocks of seagulls by which the ravages of the crickets were speedily checked, and the crops partly saved. This was not unnaturally pointed to by Brigham Young as a special interposition of Providence in favour of a people who had suffered much misery and persecution on account of their faith. Even as it was, provisions fell short during the winter, and the people were compelled to subsist for some time on roots and boiled hide.

Within a few years after the foundation of Salt Lake City, Brigham Young became anxious to establish a connection with the Pacific Sea Board, and in order to carry this into effect formed settlements along the western side of the Great Basin. These were established at Paysan, to the south of Utah Lake; at Manti, in the San Pete Valley; at Cedar city, sixty miles from Manti, and at various other places on the route towards the Mexican trail from Santa Fe to Los Angeles. His object was to place a line of settlements, in *échelon*, in this direction, and so by degrees to join the capital by a continuous chain of occupied stations with Los Angeles and San Diego. From Cedar city a well formed track was made through the Escalente desert, and from thence to the Rio Virgen, a feeder of the Colorado. There is now a railway from Springville to Frisco, a

small town about fifty miles south of Sevier Lake, with a branch from Nephi to Manti, and several settlements have, within the last few years, been established between Frisco and the line of the Atlantic and Pacific railway. It is probable, therefore, that the line from Frisco to Springville will, in course of time, be extended through the Escalente desert, and along the western side of the valley of the Rio Virgen, so as to bring Salt Lake City into direct railway communication with Los Angeles.

The Mormon superstition presents so much that is curious, looking to the condition of society at the time when it was promulgated, that I make no apology for giving some account of it, and of the difficulties which its founders had to overcome before it became established on an apparently solid basis. Many years ago a person named Solomon Spalding—a relation of the man who invented wooden nutmegs—wrote a work to which he gave the name of "The Manuscript Found." This work purported to be an historical romance, founded upon supposed evidence that the North American Indians were the descendants of the lost tribes of Israel. It professes to give a detailed account of their journey by land and sea from Jerusalem to America, under the leadership of leaders named Nephi and Lehi. These are said to have engaged in quarrels and contentions after their arrival in America, and to have separated, in consequence, into

two distinct nations, one of which was denominated the Nephites, and the other the Lamanites.

Cruel and bloody wars between them are described, in which great multitudes were slain, the dead being buried in large heaps, which are said to constitute the mounds now so commonly found in North America, and their civilization and knowledge of the arts and sciences are dwelt upon, in order to account for the remarkable ruins and other curious antiquities found in various parts of the continent.

The book is written in the Biblical style, and commences almost every sentence with "And it came to pass," "Now, it came to pass," but although it exhibits some power of imagination, as well as a fair degree of scientific information, it was not considered likely to take with the public and remained for several years unnoticed, in the possession of Messrs. Patterson and Lambdin, printers, in Pittsburg.

Lambdin, one of the firm, having become bankrupt, determined to raise the wind by some book speculation, and on looking over the various manuscripts then in his possession, "The Manuscript Found," venerable in its dust, was, upon examination, looked upon as likely to prove a gold mine which would restore him to affluence. But his death put an end to the speculation, as far as his interests were concerned.

Lambdin had intrusted the manuscript to a friend of his, one Sidney Rigdon, to embellish and alter, so as to render it more attractive to the general reader, but Lambdin's death having interfered with the original design, the manuscript remained unused, until, acting upon a sudden impulse, Rigdon who knew his countrymen's avidity for the marvellous, resolved to give to the world "The Manuscript Found," not as a mere work of imagination as its writer had intended it to be, but as a new code of revealed religion.

For some time Rigdon worked very hard, studying the Bible, and altering his book so as to homologate it in some degree with the former, and preaching sermons based upon the doctrines contained in the supposed revelation, by which means he excited a considerable amount of expectation and curiosity. The novelty and startling nature of the doctrines which he propounded prepared his hearers for that which was coming, but Rigdon soon perceiving the evils which his wild imposture was calculated to generate, recoiled from his task, not because of any sentiment of honesty, but because he was lacking in courage. He was a scoundrel, but a timorous one, and always in dread of the penitentiary. With him the propounding of Mormonism was intended as a mere money speculation, but forseeing the further probable results of the intended imposture, he resolved to shelter

himself behind some fool who might bear the whole odium of the imposture when unmasked, whilst he would reap the golden harvest and quietly retire before the coming of the storm. He selected one, the now celebrated Joseph Smith, for this purpose, but, as frequently happens, the tool he supposed he had found, though a perfectly unlettered man and quite as great a rogue as himself, became his master. Smith was a man of bold conception, full of courage and mental energy, one of those unprincipled, yet lofty, aspiring beings who, centuries past, would have succeeded as as well as Mahomet, and who, even in this enlightened age, succeeded in bringing about one of the most remarkable events which has characterized the present century.

When it was too late to retract, Rigdon discovered that instead of securing the services of a mere bondsman, he had subjected himself to a superior will, to which he had himself become a slave bound by fear and interest, his two great guides through life. Smith, therefore, instead of Rigdon became the great religious and political leader, "the elect of God," followed and almost worshipped by thousands of enthusiastic disciples. The father of Joe Smith, as he was familiarly called, was one of a somewhat numerous class of persons then termed, in the west, "money diggers," living a vagrant life, imposing upon the credulous by pretending

to the power of discovering concealed treasure, but who subsisted chiefly by stealing horses and cattle. Joseph was the second son and a great favorite of his father, who stated everywhere that he possessed a species of second sight, which enabled him readily to discover where treasure had been hidden. His reputation in this respect was increased by the possession of a sacred stone, alleged to have been "the gift of God," on looking into which he pretended to learn whatever he wished to know. As this stone did much towards raising him to his high position, I here insert an affidavit made by one Nahum Howard relative to the manner in which it came into Smith's possession.

"Manchester, Ontairo County,
"New York, 1833.

"I became acquainted with the Smith family, known as the authors of the Mormon Bible, in the Year 1820. At that time they were engaged in the money-digging business, which they followed until the latter part of the season of 1827.

"In the year 1822 I was engaged in digging a well; I employed Joe Smith to assist me. After digging about twenty feet below the surface of the earth, we discovered a singular looking stone, which excited my curiosity. I brought it to the top of the well, and as we were examining it, Joseph laid it in the crown of

his hat, and then put his face into the top of his hat. It had been said by Smith that he got the stone from God, but this is false. The next morning Joe came to me and wished to obtain the stone, alleging that he could see in it; but I told him I did not wish to part with it, on account of its being a curiosity, but would lend it. After obtaining the stone he began to publish abroad what wonders he could discover by looking into it, and made so much disturbance among the credulous part of the community, that I ordered the stone to be returned to me again. He had it in his possession about two years. I believe, sometime in 1825, Hiram Smith (Joe's brother) came to me, and wished to borrow the same stone, alleging that they wanted to accomplish some business of importance, which could not very well be done without the aid of the stone. I told him it was no particular worth to me, but I merely wished to keep it as a curiosity, and if he would pledge me his word and honor that I should have it when called for, he might have it, which he did, and took the stone. I thought I could rely on his word at this time, as he had made a profession of religion, but in this I was disappointed, for he disregarded both his word and honor.

"In the fall of 1826 a friend called upon me and wished to see that stone about which so much had been said, and I told him if he would go with me to Smith's

(a distance of about half a mile) he might see it. To my surprise, however, on asking Smith for the stone, he said, 'You cannot have it.' I told him it belonged to me; repeated to him the promise made to me at the time of obtaining the stone; upon which he faced me with a malignant look and said, '*I don't care who the devil it belongs to; you shall not have it.*'

"Signed, NAHUM HOWARD."

It will thus appear that Joe certainly had become—to use a Yankee phrase—"a smart man," and it was prophesied by the "old ones" that, provided he escaped hanging, he would certainly become a General at least, if he did not eventually reach the office of President of the States. But Joe's smartness soon became so great, that Palmyra, where his father usually resided, became too small for his talents and he determined to set off on his travels, and find a wider field for their exercise. In the fall of 1826, being then at Philadelphia, he resolved to get married to a young woman whom he had met in Pennsylvania, but being destitute of means, he set his wits to work to raise the necessary funds for the purpose, and at the same time to obtain such a recommendation to her parents—who had exhibited some disinclination towards the intended union—as would secure his success in his suit. He went to a respectable man named Lawrence, well-known to the girl's parents, and stated that he had discovered a very rich silver

mine on the left bank of the Susquehanna River, and promised that if Lawrence would go there with him, and pay the expense of the journey, he should have a share in the undertaking; that the mine was near high water mark, and that they could put the silver into boats and take it down the river to Philadelphia and there dispose of it. Deceived by Smith's representations and promises, Lawrence gave credence to the story and agreed to advance the money necessary for the expedition. On reaching Harmony, Joseph was so strongly recommended by Lawrence that the parents of the young woman ultimately gave her to him in marriage, but of course nothing ever came of the supposed silver mine, and Lawrence had his trouble for his pains. Whilst following this mode of life Smith found his way to Pittsburg in the beginning of 1827, and there became acquainted with Rigdon. A great intimacy sprung up between them, the result of their intercourse being that Smith assumed a new character, which first revealed itself under the following circumstances. In the month of June of that year he went to a wealthy but credulous farmer, and told him the following story:—

"That some years before a spirit had appeared to him in a vision, and informed him that in a certain place there was a record on plates of gold, and that he was the person who must obtain them, which was to be

done in the following manner:—On the 22nd of September, he must repair to the place where these plates of gold, were deposited, dressed in black clothes, and riding a black horse with a switch tail, and demand the plates in a certain name; and that after obtaining them, he must immediately go away, and neither lay them down or look behind him."

The farmer, singularly enough, gave credit to this remarkable communication, fitted Smith out with a new suit of black clothes, and borrowed a black horse for his use. Joe (by his own account) repaired to the place of deposit and demanded the plates, which were said to be in a stone box unsealed, and so near the surface of the ground that he could see one end of it. Uncovering and raising up the lid, he took out the plates of gold, but fearing that some one might discover where he had got them, he laid them down in order that he might replace the lid as he had found it, when, moving round, to his surprise, the plates were nowhere to be seen. He again opened the box, and saw the plates in it; he attempted to take them out again but was unable to do so, and observed in the box something like a toad, which gradually assumed the appearance of a man and struck him on the side of the head. Not being discouraged at trifles, Joe stooped down and attempted to take the plates, when the spirit struck him again, knocking him backwards three or

four rods, and hurting him very much. Recovering from his fright, he inquired of the spirit, why he could not take the plates; to which the spirit replied, "Because you have not obeyed your orders." He then inquired when he could have them, and was answered: "Come one year from this day, and bring with you your eldest brother; then you shall have them."

"This spirit," said Joseph, "was that of the prophet Moroni, who had engraved the plates, and had been sent to make known those things to me." Before the expiration of the year his eldest brother died; but notwithstanding his death, Smith returned to the place of deposit, and again demanded the plates. The spirit reappeared, and after having inquired for his brother and been informed that he was dead, commanded him to come again in another year from that day, and bring a certain man with him. On Smith's asking who might be the man, he was answered that he would know him when he saw him.

Thus, while Rigdon was concocting his new Bible and preaching his new doctrines, Smith was preparing the minds of the people for the appearance of something wonderful; and although he was known to be a drunken vagabond, he nevertheless succeeded in inspiring in hundreds of uneducated farmers a feeling of awe which they could not account for. I must pass over many details, interesting in themselves, but too long for

insertion in this work. It is sufficient to say that after a time Smith gave out that he had obtained possession of the golden plates, and had received from Heaven a pair of spectacles, by means of which the unknown characters engraved upon them could be deciphered and their meaning translated into the vulgar tongue.

It may indeed seem strange that such absurd statements should have been credited, but the history of many minor superstitions which have arisen during the present century, even in an enlightened country like England, such as those of Johanna Southcote and Sir William Courtenay, shows to what an extent infatuation may be displayed under similar influences.

CHAPTER VII.

FURTHER HISTORY OF MORMONISM—SALT LAKE CITY—THE TEMPLE—THE TABERNACLE—THE WATER SUPPLY AND INDUSTRIAL INSTITUTIONS OF THE CITY—FORT DOUGLAS AND ITS SURROUNDINGS.

AT its first organization, which took place whilst the plates were supposed to be in course of translation, the new church consisted of six members only, who at once applied themselves with great zeal to obtain adherents. Their first efforts were confined to Western New York and Pennsylvania, where they met with considerable success. After a number of converts had been made, Smith announced that he had received a revelation to the effect, that he and all his followers should go to Kirkland, in Ohio, and there take up their abode. Many obeyed this command, selling their possessions and helping each other to settle on the spot designated. This place was declared to be the present head-quarters of the church and the residence of the prophets; but it does not appear that they ever regarded it as a permanent settlement: for, in the Book of Covenants, it is said, in speaking of Kirkland, "I consecrate this land

unto them for a little season, until I, the Lord, provide for them a home." In the spring of 1831, Smith, Rigdon and others declared themselves directed by revelation to go on a journey to Missouri, where the Lord was to point out to them the place of the New Jerusalem. This journey was accordingly taken, and and when they arrived a further revelation was announced, pointing out the town of Independence, in Jackson county, as the central spot of the land of promise, where they were directed to build a temple, etc., etc. After their return to Kirkland a number of revelations were received commanding the saints throughout the country to purchase and settle in the land of promise. Accordingly many went, and began to build up "Zion," as they called it. In 1831 a consecration law was established in the church by revelation. It was first published in the Book of Covenants, in the following words:—"If thou lovest me, thou shalt keep my commandments, and thou shalt consecrate all thy properties unto me, with a covenant and deed which cannot be broken." This law, however, has been altered since that time. As modified, it reads thus:—"If thou lovest me, thou shalt serve and keep all of my commandments, and, behold, thou shalt remember the poor, and consecrate of thy properties for their support that which thou hast to impart unto them, with a covenant and a deed which cannot be broken."

In April, 1832, a firm was established by revelation, ostensibly for the benefit of the church, consisting of the principal members in Kirkland and Independence. They were bound together by an oath and covenant to manage the affairs of the poor and all things pertaining to the church, both in Zion and Shinakar, the name then given to Kirkland. In June, 1833, another revelation was received to lay off Kirkland in lots, and the proceeds of the sale were to go to this firm.

In 1834 or 1835 the firm was divided, under directions given in a revelation, so that those in Kirkland continued as one firm, and those in Missouri as another. In the same revelation they were commanded to divide the consecrated property between the individuals of the firm, which each separately was to manage as a steward.

Previous to this, a revelation had been received commanding the faithful to build a temple, which was to be done out of the consecrated funds, under the control of the two firms. In erecting this building the firm involved itself in debt to a large amount, to meet which, in the revelation last mentioned, the following appears:—"Inasmuch as ye are humble and faithful, and call on my name, behold, I will give you the victory. I give unto you a promise that you shall be delivered this once out of your bondage, inasmuch as you obtain a chance to loan money by hundreds and

thousands, even till you have obtained enough to deliver yourselves out of bondage."

This implied a command to borrow money in order to free themselves from the debt that oppressed them. The attempt to do so, however, failed, and this failure led to another expedient. In 1835, Smith, Rigdon, and others formed a mercantile house, and purchased goods in Cleveland and Buffalo to a very large amount on six months credit. In the fall other houses were formed, and goods purchased in the eastern cities to a still greater amount. A great part of the goods of these houses went to pay the workmen on the temple, and many were sold on credit, so that when the notes given for the goods became due they were dishonoured. Smith and Rigdon then attempted to borrow money by issuing their own notes payable at different periods after date. This expedient not being effectual, the idea of a bank suggested itself, and in 1837 the "Kirkland Bank" was established, but without any charter.

This institution, by which so many were swindled, was formed after the following manner:—Subscribers for stock were allowed to pay the amount of their subscriptions in town lots, at five or six times their real value; others paid in personal property at a high valuation, and some paid in cash. When the notes were first issued, they were current in the vicinity, and Smith took advantage of their credit to pay off with

them the debts he and the brethren had contracted in the neighbourhood for land and other purchases. The eastern creditors, however, refused to take their notes.

This led to the expedient of exchanging them for the notes of other banks. Accordingly the elders were sent all over the country to barter Kirkland notes, which they did with great zeal, for those of other banks and succeeded in putting off a large amount, but this scheme exploded within a few months after its adoption, involving Smith and his brethren in very great difficulties. The consequence was that he and most of the members of the church set off, in the spring of 1838, for Missouri, pursued by their creditors, but to no effect. In the meantime the Mormons who had settled in and about Independence in 1831, having become very arrogant, claiming the whole country as their own, saying that the Lord had given it to them, had so exasperated the older citizens that a mob was raised and expelled the whole body. They fled to Clay County, where they were permitted to live in peace until 1836, when a spirit of antagonism towards them began to manifest itself, and they retired to a district then very thinly peopled, which the Missouri Legislature, in 1837, created into a county, by the name of Caldwell, with Far-West for its capital Here the Mormons remained in quiet until after the bank explosion in Kirkland, when they were joined by Smith,

Rigdon and others of the heads of the sect. Shortly after this, the Danite Society was organised, the object of which was to drive the dissenters out of the country. The members of this society were bound by an oath and covenant, under penalty of death, to defend the presidency and each other unto death, right or wrong. After this body had been formed, notice was given to many of the dissenters to leave the county, and they were threatened severely in case of disobedience.

The effect of this was that many of the dissenters left; among these were David Whitmer, John Whitmer, Hiram Page and Oliver Cowdery, all original witnesses to the authenticity of the Book of Mormon, and Lyman Johnson, one of the twelve apostles.

In the early part of the fall of the year 1838, the last disturbance between the Mormons and the Missourians commenced. It had its origin at an election in Davies county, where some of the Mormons were located. A citizen of Davies, in a conversation with a Mormon, remarked that the Mormons all voted one way; this was denied with warmth; a violent contest ensued, when, at last, the Mormon called the Missourian a liar. They came to blows, and the quarrel was followed by a tremendous row between the Mormons and the other Missourians.

A day or two after this, Smith, with a company of men from Far West, went into Davies County for the

purpose, as he said, of quelling the mob; but when they arrived, the mob had dispersed. The citizens of Davies gathered in their turn; however, the Mormons soon collected a force to the amount of five hundred men, and compelled the citizens to retire; they fled, leaving the country deserted for many miles around. At this time, the Mormons killed between two and three hundred hogs, and a number of cattle; took at least forty or fifty stands of honey, and at the same time destroyed several fields of corn. The word was given out that the Lord had consecrated the spoils unto his host.

All this was done when they had plenty of their own, and before the citizens in that section of the country had taken anything from them. They continued these depredations for near a week, when the Clay County Militia was ordered out. The contest was a bloody one, but finally Smith, Rigdon and many others were taken prisoners, and, at a Court of inquiry, were committed for trial. Rigdon was afterwards discharged on *habeas corpus*, and Smith and his comrades, after lying in prison for several months, escaped from their guards and reached Quincy in Illinois, where he joined the main body of his people, who, under orders from the Governor of Missouri, had evacuated that State in a body and arrived in a condition of great destitution and wretchedness. Their condition, with their tales of

persecutions and privations, wrought powerfully upon the sympathies of the citizens, and caused them to be received with the greatest of hospitality and kindness. After the arrival of Smith, the greater part of the immigrants settled at Commerce on the Mississippi river, a site of great beauty. There they began to build, and in the short time of four years they had created a considerable city, to which Smith gave the name of Nauvoo.

For some years they were treated by the citizens of Illinois with respect and kindness, but their conduct at length became so unsatisfactory as to turn the tide of feeling against them. In the winter of 1840, they had applied to the state Legislature for several charters one for their "new city" of Nanvoo; one for the Nanvoo legion; one for manufacturing purposes, and one for the Nanvoo University.

The privileges which they asked for were very extensive, but such was the desire to secure their political support, that all were granted for the mere asking; indeed, the leaders of the Legislature seemed to have vied with each other in sycophancy towards this body of fanatical strangers, so anxious was each party to do them some favour which would secure their gratitude. Nanvoo, as already mentioned, was built on the bank of the Mississippi, in latitude 40deg. 35min. north, and was bounded on the north, south, and west by the river,

which there forms a large curve, and is nearly two miles wide.

The surface of the ground was very uneven, though there were no great elevations. A few feet below the soil is a vast bed of limestone, from which excellent building material could be quarried to almost any extent. A number of *tumuli*, or ancient mounds, were found within the city limits, proving the site to have been a place of importance with the former inhabitants of the country.

The space comprised was about four miles in its extreme length, and three in breadth ; but the city itself was very irregular in outline, and did not cover so much ground as the above measurement would seem to indicate. It was regularly laid out, the streets crossing each other at right angles, and generally of considerable length and convenient width. The majority of the houses were nothing more than log cabins, but there were, nevertheless, a great number of plank and brick buildings. The chief edifices were the temple, and an hotel called the Nauvoo House, the latter being of brick on a stone foundation, presenting a front of one hundred and twenty feet, by sixty feet deep, and being three stories high, exclusive of the basement.

The temple was a splendid structure of stone, quarried within the bounds of the city ; its breadth was eighty feet, and its length one hundred and forty,

independent of an outer court of thirty feet, making the length of the whole structure one hundred and seventy feet. In the basement of the temple was the baptismal font, constructed in imitation of the famous brazen sea of Solomon; it was supported by twelve oxen, well modelled and overlaid with gold. Upon the sides of the font, in panels, were represented various scriptural subjects, well painted. The upper story of the temple was used as a lodge room for the Order Lodge and other secret societies. In the body of the temple, where the congregation assembled, were two sets of pulpits, one for the priesthood and the other for the grandees of the church. The cost of this edifice was defrayed by tithing the whole Mormon denomination. Those who resided at Nanvoo, and were able to labour, were obliged to work every tenth day in quarrying stone, or upon the building of the temple itself.

Nanvoo is a Hebrew word, and signifies a beautiful habitation for a man, carrying with it the idea of rest. It was not, however, considered by the Mormons as their final home, but as a resting place, and they only intended to remain there until they had gathered force sufficient to enable them to conquer Independence in Missouri, which they looked upon as one of the most fertile, pleasant, and desirable countries on the face of the earth, possessing a soil and climate unsurpassed by any other region. Independence they looked upon as

their Zion, where they desired ultimately to rear their great temple, the corner stone of which had been already laid. There was to be the great ultimate gathering place for the saints; and, in that delightful and healthy country, they expected to find their Eden and build their New Jerusalem. In the present aspect of their affairs, however, it is somewhat more than doubtful whether their anticipations will ever be realised.

The design of Rigdon at the time of the first publication of the Book of Mormon had, as already mentioned, nothing more than pecuniary advantage in view, and, indeed, it can scarcely be supposed that he and those who were associated with him could have anticipated the ultimate result of the venture. When, however, the delusion began to spread, he and his coadjutors saw the door opened not only for wealth but also for extensive power, and the following letter written from Nauvoo, in 1842, by an officer in the United States artillery, shows how rapidly they had succeeded in their design to acquire both:—

"Yesterday (July the 10th) was a great day among the Mormons; their legion, to the number of three thousand men, was reviewed by Generals Smith, Bennet and others, and certainly made a very noble and imposing appearance; the evolutions of the troops commanded by Joe would do honor to any body of regular soldiers in England, France or Russia. What

does this mean? Why this exact discipline of the Mormon corps? Do they intend to conquer Missouri, Illinois, Mexico? It is true they are part of the militia of the state of Illinois by the charter of their legion, but then there are no troops in the State like them in point of discipline and enthusiasm; and, led on by ambitious and talented officers, what may not be effected by them? Perhaps the subversion of the constitution of the United States, and, if this should be considered too great a task, foreign conquest will most certainly be attempted.

"The northern provinces of Mexico will fall into their hands, even if Texas should first take possession of them. These Mormons are accumulating like a snowball rolling down an inclined plane. They are also enrolling among their officers some of the first talent in the country, by titles which they give and by money which they can command.

"They have appointed Captain Henry Bennet, late of the United States army, Inspector-General of their legion, and he is commissioned as such by Governor Carlin. This gentlemen is known to be well skilled in fortification, gunnery and militarv engineering generally; and I am assured that he is receiving regular pay, derived from the tithing of this warlike people. I have seen his plans for fortifying Nanvoo, which are equal to any of Vaughan's. General John C. Bennet (a

New England man) is the prophet's great gun. They call him, though a man of diminutive stature, the "forty-two pounder." He might have applied his talents in a more honorable cause; but I am assured that he is well paid for the important services he is rendering this people, or, I should rather say, rendering the prophet. This gentleman exhibits the highest degree of field military talent (field tactics) united with extensive learning. He may yet become dangerous to the states. He was Quarter-Master General of the State of Illinois, and, at another time, a professor in the Erie University. It will, therefore, be seen that nothing but a high price could have secured him to these fanatics. Only a part of their officers and professors are Mormons; but then they are united by a common interest, and will act together on main points to a man. Those who are not Mormons when they come here very soon become so, either from interest or conviction.

"The Smiths are not without talent; Joe, the chief, is a noble-looking fellow, a Mahomet, every inch of him; the postmaster, Sidney Rigdon, is a lawyer, a philosopher and a saint. The other generals are also men of talent, and some of them men of learning. I have no doubt they are all brave, as they are most unquestionably ambitious, and the tendency of their religious creed is to annihilate all other sects. We

may, therefore, see the time when this gathering host of religious fanatics will make this country shake to its centre. A western empire is certain. Ecclesiastical history presents no parallel to this people, inasmuch as they are establishing their religion on a learned basis. In their college, they teach all the sciences, with Latin Greek, Hebrew, French, Italian and Spanish; the mathematical department is under an extremely able professor, under the name of Pratt, and a professor of Trinity College, Dublin, is president of their University. I arrived here, *incog.*, on the 1st inst., and, from the great preparations for the military parade, was induced to stay and see the turn-out, which, I confess, has astonished and filled me with fears for the future consequences. The Mormons, it is true, are now peaceable, but the lion is asleep. Take care, and don't rouse him. The city of Nauvoo contains about fifteen thousand souls, and is rapidly increasing. It is well laid out, and the municipal affairs appear to be well conducted. The adjoining country is a beautiful prairie. Who will say that the Mormon prophet is not among the great spirits of the age?

"The Mormons number, in Europe and America, about one hundred and fifty thousand, and are constantly pouring into Nauvoo and the neighbouring country. There are probably in and about this city, at a short distance from the river, not far from thirty thousand of

these warlike fanatics, and it is but a year since they have settled in Illinois."

In 1845 Smith promulgated an alleged revelation, under which the practice of polygamy was established by divine authority as part of the Mormon doctrine. This excited great indignation, and was severly attacked by one Foster, in a newspaper published at Nanvoo. In consequence of strong articles in this paper denouncing the immorality of the new doctrines, Smith and his people attacked and destroyed Foster's printing office, for which act of violence he and his brother Hyram and several others were lodged in jail, under warrant, but so incensed were the inhabitants of the State, that they attacked the jail and shot the two Smiths. Brigham Young was then elected President, but the State Legislature having immediately afterwards revoked all their charters, the Mormons made preparations for leaving. Before these were completed they were forcibly expelled and their temple destroyed, and they at once determined to settle in the Far West. Brigham Young, as already mentioned, led the pioneer party, which underwent very serious hardships before they found rest at Utah.

In 1849 they constituted their new settlement at Utah into a territory, to which they gave the name of Deseret, meaning "the land of the honey bee." The Government of the United States, however, refused to

recognise their act, though ultimately they formally created the the territory of Utah, with Brigham Young as Governor. After this there were many contests between the general Government and the Mormon leaders, which culminated in the brutal murder of a large band of emigrants at Mountain Meadows, by a party of Mormons and Indians under the leadership of John D. Lee, one of the bishops of the new church. For this act he was afterwards tried and executed, and ultimately submission to the general laws of the republic was enforced by the army which entered the Territory in 1858.

In 1882 the general Legislature declared polygamy to be criminal and subjected those who practiced it to a variety of disabilities; but the provisions of the act then passed were evaded and disregarded. In 1887, however, the legislation was more drastic, for it abolished all the state laws giving protection to polygamy, made the wife a competent witness on trials for that offence, required all marriages to be entered in a public record, disinherited all illegitimate children, cancelled the charters of the Mormon church, confiscated all real property of the church except places of worship and parsonages, and devoted the proceeds which arose from its sale to ordinary educational purposes. In order that these laws might not be evaded, the higher judicial officers are appointed by the general Government, and,

above all, a strong force of troops is permanently stationed at Fort Douglas, the guns of which command the whole city.

These stringent measures have already brought about very wholesome results, and the day is not distant, when practices so repulsive to civilized ideas as those in which the higher dignitaries of "The Church of Jesus Christ of Latter Day Saints" thought fit to indulge, will become things of the past, and "the faithful" (as they call themselves,) will live lives more in accordance with the ordinary ideas of a civilised people.

In the matter of hotels there is but little choice in Salt Lake City, the chief ones being the Walker House and the Continental. The former is pretentious and noisy, and the latter quiet, but not particularly nice or well managed. We chose the Continental, which had the merit of having a spacious upper verandah, shaded by lime trees, affording a pleasant retreat from the glare and heat of the sun.

The city is well laid out on the gently sloping ground between the mountains and the river Jordan, and has an area of several thousand acres. The streets are all two chains wide, including the side walks, which are twenty feet in width. They are nearly all bordered with lime or other deciduous trees, which afford a grateful shade, and give the city a pleasing appearance during the summer season, whilst the constant flow of

water in the side channels, adds, appearently, if not really, to the sense of coolness which pervades it. The city stands at an elevation of about 4500 feet above sea level, which is some 250 feet above the general level of the plains of the Great Basin. The climate is good, the mean summer heat not exceeding 74deg. to 76deg., which, owing to the general dryness of the air is found not to be oppressive. Indeed, sunstroke is rare, although in July and August the thermometer occasionally reaches above 90deg. As in all elevated districts the nights are cool and pleasant, affording a marked contrast in this respect to the climate of the cities to the east of the Mississippi.

Amongst the public buildings which all strangers visit are those within the Temple Block, namely, the Temple itself, which is yet unfinished, the Tabernacle, the Assembly Hall and the Endowment House. The Temple is in all respects a remarkable structure. It is being built entirely of beautiful highly polished gray granite, and, when finished, will be a massive and handsome building. The Tabernacle is a very peculiar structure, but, like all the buildings designed by Brigham Young, is especially well adapted for the purpose for which it was designed. It is elliptical in shape, 250 feet long by 150 feet wide, and 80 feet in height from floor to ceiling at its highest part. The roof is an oval arch, without any centre support, and

is said to be the largest of the kind constructed of wood. It rests upon 44 sandstone pillars, each 3ft. by 9ft. in size, and from 14ft. to 20ft. in height. A gallery extends round the building, except at the west end, and has an aggregate length of 480ft. by 30ft. in width. The whole building affords seating capacity for 12,000 persons. It has twenty doors, most of which are nine feet wide, and all opening outwards, so that an audience of from 9,000 to 10,000 persons can gain egress in a few minutes. The organ is very large and handsome, and is said to be exceeded by none in the United States in sweetness and volume of tone. It was constructed in the City, under the direction of Mr. Joseph Ridges. Its front towers are 58ft. high, and it measures on the base 33ft. by 30ft. But the most peculiar feature in the building is its remarkable acoustic properties. A person speaking at ordinary conversation pitch can be heard, with the utmost distinctness, all over it even when filled with people. When there is perfect stillness, the fall of a pin into a hat at one end of it is clearly heard at the other. The Assembly Hall is a handsome building, having the appearance of an ordinary church. The Museum contains a highly interesting collection, illustrating the varied productions of the Territory, including fine specimens of native minerals and ores, collections illustrative of the natural history of the country, Indian

curiosities, specimens of manufactures and art—shewing their gradual development amongst the Mormon settlers—besides large miscellaneous collections made by missionaries in their proselyting travels. As already mentioned, it also contains the boat in which Fremont and Kit Carson made their adventurous voyage on the Lake. The Hospitals, Churches, City Hall, Walker's Opera House, Salt Lake Theatre, and many of the other public buildings are large and substantial. The most remarkable institution, however, from an economic point of view, is the Zion Co-operative Mercantile Institution, familiarly known as the "Big Co-op." It was organized by Brigham Young in 1868, and commenced business in the following year. It has branches in Ogden, Logan, and Soda Springs; and its business is enormous, and is said, indeed, to have amounted to £1,250,000 in 1887. The main building has a depth of 319ft., and a frontage of 98ft. It has four stories including cellars, and the stock of goods at last stocktaking amounted in value to £375,000. Connected with it are a large tannery and boot, shirt, overall and jumper manufactories, the whole employing upwards of three hundred hands. There are many other manufacturing establishments carrying on extensive business in almost every branch of civilized industry, including glass and chemical works, silk and woollen mills, sash, door and moulding works, brass and iron foundries,

and engine and boiler works, all of which appeared to be in full swing. The water works are extensive and admirably arranged. The supply from City Creek Canon alone reaches 1,000,000 gallons per hour, and that portion which is intended for domestic supply is taken from the creek by a flume, to three distributing and filtering tanks having a combined capacity of 300,000 gallons. These tanks stand at an elevation of 185ft. above the city, and give an effective pressure of 86lbs. to the inch. The average daily water supply by pipes is in summer 8,000,000, and in winter 2,400,000 gallons. The total cost of the works has been £106,000; the annual expenditure is £1200, and the revenue £7500.

There are two large bathing establishments within reach of the city, namely, Garfield Beach about 20 miles away on the line of the Utah and Nevada Railway, and Lake Park on the edge of the Great Salt Lake, which has also beautifully laid out pleasure grounds connected with it, and is reached by the Denver and Rio Grande Railway. Ample accommodation for visitors is to be found at both places, but care must be exercised, whilst bathing, not to allow the water to enter either the mouth or nostrils, for, owing to its extreme salinity, it is apt to produce serious effects.

One of the most beautiful and interesting points in the vicinity of the city is Fort Douglas, the site of the

military barracks, built on part of the old lake margin, which lies on the slopes of the Wahsatch at an elevation of 500 feet above the general level of the city. The fort and grounds are tastefully laid out and planted, the waters of a small stream, which here cuts through the old lake margin, facilitating the culture of all kinds of trees, shrubs and flowers. From this spot a magnificent view is obtained. To the right and left stretch the great mountain chain of the Wahsatch, its higher peaks covered with snow; below lies the city, apparently embowered in groves of trees; beyond it, on the left, is the valley of the Jordan, looking rich and green and dotted all over with the residences of the farming population, whilst the river itself looks like a narrow blue band running through the broad extent of cultivated ground. Still further away rises the Oquirrh Mountain, snow-capped, and with its summit often veiled by fleecy clouds; towards the right lies the Great Dead Sea of America, with its many mountain islands rising from the broad expanse of deep blue water, the whole scene closed in by the more distant ranges of the Great Basin. The air at that additional elevation was cool and pleasant, and it was with regret that I was compelled to return, even to the shaded walks of the streets of Utah.

There is much to interest the traveller both in the city and in the districts immediately around it, but the

time at my disposal was quite insufficient to permit of my seeing more than I have actually described. Moreover, all the most remarkable physical features of the country between the Missouri and Sierra Nevada are within easy reach from it: the gorges of the Timpanogos, Wahsatch, and Uintah Mountains; the beautiful valley of the Bear River, with its remarkable volcanic phenomena; the line of lakes from the Great Salt Lake to the former bed of the Sevier; the stupendous chain of the Rocky Mountains, with its wonderful parks and its extensive mining establishments; the extraordinary Canons of the Gunnison and Arkansas, and, above all, those of the Colorado—all of which, and many other remarkable scenes, are connected with Salt Lake City by rail. Not less interesting are the changes effected by the industry of the Mormons in the aspect of the country to the north and south of their principal city,—changes which are forcibly brought to notice by the portions of still unredeemed desert through which the lines of railway occasionally pass. Were I, indeed, asked to select a point from which the greatest extent of interesting country in America might best be visited, I should unhesitatingly name Salt Lake City.

CHAPTER VIII.

Leave Salt Lake City—The Rocky Mountains—The Green and Rio Grande Rivers—The Black Canon of the Gunnison—The Grand Canon of the Arkansas—The Blow-up of the Overhanging Rock—The Prairies—Manitou and its Springs.

I left Salt Lake City on the afternoon of the 16th June, the weather continuing hot and dry. Our route led across the Washatch, Roan, Elk and Rocky Mountains, through Provo, Pleasant Valley Junction, Grand Junction, Delta, Gunnison, South Pueblo and Colorado Springs, and is unquestionably, the most picturesque and interesting in the United States. For some miles after leaving Lehi, the line ran along the lower slopes of the Wahsatch, and occasional glimpses were obtained of Utah Lake, which, however, was lost sight of after passing Provo. Shortly after leaving Provo we entered the Canon of the Spanish Fork River, which, though not in any way particular when compared with the great Canons we were about to pass through, was interesting to me as being the first example I had seen, of one of the physical features especially characteristic of the mountain districts of Colorado. Its sides, though steep, are rounded, and afford support to small

groves of the oak and aspen, which give it a soft and picturesque appearance. It is said to have been formerly used as an Indian highway, through which, in bygone days, the Navajos and Piutes swept down with fire and sword upon the early Mormon settlements. The discovery of some Spanish coins by a road party, whilst cutting a waggon track through the Canon, gave rise to the idea that some of the Spanish priests or friars who had been engaged in the attempt to Christianise the Indian tribes of the Colorado, had visited Utah Lake and had left these tokens behind them; but it is more probable that they had been obtained and used as ornaments, by Indians trading with the Spanish settlements.

The discovery of these coins, however, led to the stream which runs through the Canon being called the Spanish Fork. On the western side of the pass, a few miles below the summit, is Thistle Station, the railway outlet of the San Pete Valley, which extends from there to Sevier Lake. This valley was one of the principal scenes of the war between the Mormon settlers and the Indians in 1865—7, a large force of the former having been stationed there to guard the live stock, gathered into it for protection from settlements which had been temporarily abandoned, in consequence of incursions by the Indians. This force took part in the great fight with Black Hawk and his corps of mounted

Navajos, in which the latter shewed much skill and bravery. Some miles on the eastern side of the summit is Pleasant Valley Junction, from which a branch line has been carried to extensive coal mines about sixteen miles away. The coal produced is said to be of excellent quality, and as the traffic from the mines to Salt Lake City is chiefly on a descending grade, its discovery has been a great boon to the inhabitants of the city and its vicinity, in consequence of the reduction which the facility of transport has caused in the price of fuel.

Soon after leaving Pleasant Valley Junction we entered Castle Canon, through which the Price River runs to the Green River, one of the main branches of the Colorado. Castle Canon far exceeds that of the Spanish Fork in grandeur, but nevertheless, only faintly foreshadows the wonders of the Black Canon Gunnison, and the Grand Canon of the Arkansas, through both of which we had to pass before the line emerged from the great mass of the Rocky mountains. Price Valley has been formed by cutting through an extensive deposit of sedimentary rocks, which lie in horizontal beds, shewing no sign of disturbance. The solid sides are very steep, indeed, generally perpendicular, but a talus has been formed along the foot of each wall, upon which clumps of oak and juniper and many other trees and shrubs are growing, taking away the dreary appearance which it would otherwise have

presented. Castle Gate, near the entrance to the Canon, is very remarkable, each side of the gate being a stupendous wall of rock, which stretches from the bank of the river to the corresponding side of the Canon. It has been cut through from top to bottom, by the river, which has been content with eroding the space necessary for its own passage through this formidable obstacle. It is impossible to conceive the enormous period which must have elapsed between the commencement of the deposition of the sedimentary matter contained in the strata cut through, and their upheaval to their present elevation of nearly 7000 feet above sea-level, during the latter part of which the formation of the valley unquestionably took place. Independently of the generally received geological doctrine, that cataclysms can rarely be invoked as causes of the phenomena observed in the structure of the earth's crust, the total absence from the deposits in question, of any evidence of sudden or violent disturbance, points to the conclusion that myriads of years must have intervened between the commencement of the deposit and the complete erosion of the valley.

Emerging from Castle Canon, a little below Lower Price Crossing, the line runs to the Green River, over which it passes by a fine bridge. At Cisco it enters upon the eastern slopes of the Roan Mountains, the scenery of which is very picturesque. These mountains

occupy the space between the Green River and the Rio Grande, the second large branch of the Colorado, which unite to form the main river about fifty miles to the south of Cisco. It is said that, from a point a few miles below the latter place, the summits of the broken walls of the Great Canons of the Colorado, beside which, even those of the Gunnison and the Arkansas, stupendous as they are, almost sink into insignificance, can be seen, but they were not visible during my journey.

At Grand Junction the line crosses the Rio Grande over a magnificent bridge, 950 feet in length, and enters upon the valley of the Gunnison, which it follows to Delta, situated at the confluence of the Gunnison River with the Uncompahgré. A branch is now being constructed from Delta to Crested Butte, intended to open out the mining districts in the Elk Mountains, and is said to run through scenery unsurpassable in beauty and grandeur. From Delta, the main line, instead of following the course of the Gunnison River, owing to the difficulties of the lower parts of the Black Canon, turns to the southward to Montrose, which is becoming a place of importance in connection with the mining districts of the San Juan Mountains, of which those at Silverton are the most extensive. From Montrose it follows a branch of the Uncompahgré to Cimarron, where it dashes at once into the upper part of the Black Canon. An "observation car" is here always attached to the train,

and ours was speedily filled with sightseers. The entrance to the Canon from Cimarron is a zig-zag, dark and narrow, but we soon found ourselves in a broad chasm, between stupendous walls of rock, occasionally shadowed by huge overhanging cornices, and rising abruptly from the level of the river to a height varying from 1500 to 3000 feet, without a break. Nothing can exceed the idea of irresistible power which the erosion of this tremendous chasm creates in the mind of the observer. Take the smallest fragment of the rock of which its walls are composed, and it would seem impossible for any river, however mighty its rushes, to produce any effect whatever upon the solid mass which formerly filled the chasm; and yet there can be no doubt that the eroding power of the waters of the Gunnison, perpetually charged, as they are, with sediment, has been sufficient to produce all the results we now see. "Founded," says an eloquent writer, in attempting to describe this Canon, "in unknown depth, straight from the liquid emerald, frosted with foam which flecks their base, perpendicular as a plummet's line, and polished like the jasper gates of the Eternal City, rise these walls of echoing granite to their dizzy battlements. Here and there a promontory stands as a buttress; here and there a protruding crag overhanging like a watch-tower on a castle wall; anon you may fancy a monstrous profile graven in the angle of some cliff, a gigantic Hermes

rudely fashioned. In one part of the Canon, where the cliffs are highest, measuring three thousand feet from the railway track to the crown of their haughty heads, faces of the red granite, hundreds of feet square, have been left by a split occuring along a natural clearage-line; and these are now flat as a mirror, and almost as smooth. On the other hand, you may see places where the rocks rise, sheer and smooth, but so crumpled and contorted that the partition lines, instead of running at right angles, are curved, twisted and snarled in the most intricate manner, showing that violent and conflicting agitations must have occurred there, at a time when the whole matter was heated to plasticity. In another place, the cliff on the southern side breaks down and slopes back in a series of interrupted and irregular terraces, every ledge and cranny having a shapely tree; while not far away in another part of the long escarpment, the rocky layers, turned almost on edge, have been somewhat bent and broken, so that they lie in imbricated tiers upon the convex slopes, as if placed there shingle-fashion.

"Just opposite, a stream, whose source is invisible, has etched itself a notched pathway from the heights above. It plunges down in headlong haste, until there comes a time when there is no longer rock for it to flow upon, and it flings itself out into the quiet air, to be blown aside and made rainbows of, to paint upon the circling

red cliffs a wondrous picture in flashing white, and then to fall with sibilancy into the river. The river has no chance to do so brave a thing as this leap of Chippeta falls from the lofty rock; but, seeing a roughened and broken place ahead, where the fallen boulders have raised a barrier, it goes at it with a rush and hurls its plumes of foam high overhead, as, with swirl and tumult, and a swift shooting forth of eddies held far under its snowy breast, it bursts through and over the obstacle and sweeps on, conqueror to the last.

"In the very centre of the Canon, where its bulwarks are most lofty and precipitous, unbroken cliffs rising two thousand feet without a break and shadowed by overhanging cornices,—just here stands the most striking buttress and pinnacle of them all,—Currecanti Needle. It is a conical tower, standing out somewhat beyond the line of the wall from which it is separated, (so that from some points of view it looks wholly isolated) on one side by a deep gash, and on the other by one of those narrow side-canons, which, in the western part of the gorge, occur every mile or two. These ravines are filled with trees, and make a green setting for this massive monolith of pink stone, whose diminishing apex ends in a leaning spire that seems to trace its march upon the sweeping clouds.

"It was in the recesses of the rift beside Currecanti Needle, says a tradition which at least is poetic, that

the red men used to light the midnight council-fires around which they discussed their plans of battle. Though judgment may refuse the fact, fancy likes to revel in such a scene as that council-fire would have made, deep in the arms of the rocky defile. Surely the time and place were suitable for planning the warfare of a savage race; and as these untamed men, their muscular limbs and revengeful faces, disclosed uncertainly,—like the creatures of a flitting fantasy in the red firelight,—enacted with terrifying gestures the fierce future of their plotting, a spectator might well think himself with fiends

'On night's Plutonian shore,'

or else discard the whole picture as only the fantastic scenery of some disordered dream.

"Opposite Currecanti Needle and Canon stand some very remarkable rocks, underneath the greatest of which the train passes. Then there is a long bridge to cross where the river bends a little, and perhaps the echoing chasm will be filled with the hoarsely repeated scream of a warning whistle. And so, past wonder after wonder, Pelion upon Ossa, buried in a huge rocky prison, yet always in the full sunlight, you suddenly swing round a sharp corner, leaving the Gunnison, to go on through ten miles more of Canon, and crashing noisily through the zig-zag of the Cimarron, which is

so narrow and dark as to deserve no better name than crevice, you emerge into daylight and a busy station."

This extract will give my readers some idea of the marvellous scenes passed through during the hour which the train occupies in its way from Sapinero to Cimarron; but words are really inadequate to convey the impression produced by the sight of such wonders. These are repeated, even on a larger scale, in the Grand Canon of the Arkansas, which is entered about fifty miles below the summit of Marshall's Pass. I am tempted here to transcribe a quaint story related by Ingersoll, and which, he says, was seriously told to him as having actually occurred during the construction of the railway through this Canon:—

"Thomas Paine tells us, in his Age of Reason, that the sublime and ridiculous are often so nearly related that it is difficult to class them separately. It is good philosophy also, that the higher the strain the longer the rebound, so no excuse is needed for asking you to enjoy, as heartily as we did, the story an old fellow told us at the supper station, who dropped the hint that he had been one of the 'boys' who had helped push the railway through this Canon. Moreover, he helped us to a new phase of human nature, as exemplified in the mind of an 'old timer.'

"The influence of the Canon on the ordinary tourist, perhaps, will be comparatively transient, fading into a

dream-like memory of amazing mental impressions. Not so with the man who has dwelt, untutored, for many years, amid these stupendous hills and abysmal gorges. His imagination, once aroused and enlarged, continues to expand; his fiction, once created, hardens into fact; his veracity, once elongated, stretches on and on for ever. Of all natural curiosities he is the most curious, more marvellous than even the grand Canon itself.

"Strictly sane and truthful in the day time, he speaks only of commonplace things; but when the night comes, and the huge mountains group themselves around his camp-fire like a circle of black Cyclopean tents, he shades his face from the blaze, and bids his imagination stalk forth with Titanic strides. Then, if his hearers are in sympathy, with self-repressed and nonchalant gravity he pours forth, in copious detail, his strange experiences with bears and bronchos, Indians and serpents, footpads and gamblers, miners and mules, tornadoes and forest fires. He never, for a moment, weakens the effect of his story by giving way to gush and enthusiasm; he makes his facts eloquent, and then relates them in the careless monotone of one who is superior to emotion under any circumstances. We could not find our old timer in these most favorable circumstances, but ensconced behind

> 'Sublime tobacco! which from east to west,
> Cheers the tar's labors, or the Turkman's rest.'

He seized his opportunity, in our discussion of the heroic engineering by which the *penetralia* of the Royal Gorge was opened to the locomotive, and began :—

"Talk about blastin'! The boy's yarn about blowin' up a mountain's nothin' but a squib to what we did when we blasted the Ryo Grand railroad through the Royal Gorge. One day the boss sez to me, sez he, 'Hyar, you, do you know how to handle gunpowder?' Sez I, 'You bet!' Sez he, 'Do you see that ere ledge a thousand feet above us, stickin' out like a hat brim?' Sez I, 'You bet I do.' 'Wall,' sez he, 'that'll smash a train into a grease-spot some day, if we don't blast it off.' 'Jes so,' sez I. 'Wall, we went up a gulch, and clum the mountain and come to the presipass, and got down on all fours, an' looked down straight three thousand feet. The river down there looked like a lariat a' runnin' after a broncho. I began to feel like a kite a' sailin' in the air like. Forty church steeples in one warin't nowhar to that ere pinicle in the clouds. An' after a while, it began rainin' an' snowin' an' hailin' and thunderin' and doin' a regular tornado biznis down thar, an' a reglar summer day whar we wuz on the top. Wall, there was a crevice from where we wuz, an we sorter slid into it, to within fifty feet o' the ledge, an' then they let me down on the ledge with a rope and drill. When I got down

thar, I looked up an' sez to the boss, 'Boss, how are you goin' to get that 'cussion powder down?' Yer see, we used this 'ere powder as'll burn like a pine-knot 'without explodin,' but if yer happen to drop it, it'll blow yer into next week 'fore yer kin wink yer eye. 'Wall,' sez the boss, sez he, 'hyar's fifty pound, and yer must ketch it.' 'Ketch it,' sez I. 'Hain't ye gettin' a little keerless—s'pose I miss it?' I sez. 'But ye must n't miss it,' sez he. 'T seems to me yer gettin' mighty keerful of yourself all to wonst.' Sez I, 'Boss, haul me up. I'm a fool, but no idgit. Haul me up. I'm not so much afeared of the blowin' up ez of the comin' down. If I should miss comin' onto this ledge, thar's nobody a thousan' feet below thar to ketch me, an' I might get drowned in the Arkansaw, for I kain't swim.'

"So they hauled me up, an' let three other fellows down, an' the boss discharged me, an' I sot down sorter behind a rock, an' tole 'em they'd soon have a fust-class funeral, and might need me for pall-bearer. 'Wall, them fellows ketched the dynamite all right, and put 'er in, an' lit their fuse, but afore they could haul 'em up she went off. Great guns! Twas wuss'n forty thousan' Fourth o' Julys. A million coyotes an' tin pan an' horns an' gongs ain't a sarcumstance. Th' hull gorge fur ten mile bellered, an' bellered, and' kep' on bellerin' wuss'n a corral o' Texas bulls. I foun'

myself on my back a lookin' up an' th' las' thing I seed wuz two o' them fellers a' whirlin' clean over the mountain, two thousan' feet above. One of 'em had my jack-knife and tobacco; but it's no use cryin';—it was a good jack-knife though; I don't keer so much fur the tobacker. He slung suthin' at me as he went over, but it did n't come nowhar near, 'n' I dont know yet what it was. When we all kinder comes to, the boss looked at his watch, 'n' tole us all to witness that the fellows was blown up just at noon, an' was oney entitled to half a day's wages, an' quit 'thout notice. When we got courage to peep over an' look down, we found that the hat-brim was n't busted off at all; the hull thing was only a squib. But we noticed that a rock ez big ez a good sized cabin had loosined, an had rolled down on top of it. While we sat lookin' at it, boss he sez, 'Did you fellers see mor'n two go up?' 'No, sez we, and pretty soon we heern t'other feller a' hollerin', 'come down 'n' get me out!'

"Gents, you may have what's left of my old shoe, if the ledge hadn't split open a leetle, 'n' that old chap fell into the crack, 'n' the big rock rolled onto the ledge 'n' sorter gently held him thar. He warn't hurt a har. We wern't slow about gettin' down. We jist tied a rope to a pint o' rock an' slid. But you may hang me for a chipmunk ef we could git any whar near him, an' it was skeery business a foolin' roun' on that ere verandy.

It war' n't much bigger 'n' a hay-rack, an' a thousan' foot up. We hed some crowbars, but boss got a leetle excited, an' perty soon bent every one on'em tryin' to prize off that bowlder that'd weigh a hundred ton like. Then again we wuz all on it, fer it kivered th' hull ledge, 'n' whar'd we ben ef he'd prized it off? All the while the chap kep' ahollerin', "Hurry up; pass me some tobacker!' Oh, it was the pitterfulest cry you ever hearn, an' we didn't know what to do till he yelled, 'I'm a losin' time; hain't you goin' to get me out'? Sez boss, 'I've bent all the crowbars an' we can't git you out.'

"'Got any dynamite powder?' sez the feller.

"'Yes.'

"'Well, then, why'n the name of the Denver 'n' Ryo Grand don't you blast me out?' sez he.

"'We can't blast you out,' sez boss, 'fur dynamite busts down, an' it'll blow you down the Canyon.'

"'Well, then,' sez he, 'one o' ye swing down under the ledge, an' put a shot in whar its cracked below.'

"'You're wiser'n a woman,' sez boss, 'I'd never thought o' that.'

"So the boss took a rope, 'n' we swung him down, 'n' he put in a shot 'n' was goin' to light the fuse, when the feller inside smelt the match.

"'Heve ye tumbled to my racket?' sez he.'

"'You bet we have, feller priz'ner!' sez the boss.

"'Touch 'en off!' sez the feller.

"'All right,' sez boss.

"'Hold on!' yells the feller as wuz inside.

"'What's the racket now?' sez the boss.

"'You hain't got the sense of a blind mule,' sez he. 'Do you s'pose I want to drop down the Canyon when the shot busts? Pass in a rope through the crak, 'n' I'll tie it roun' me, 'n' then you can touch er' off kind o' easy like.'

"Wall, that struck us all as a pious idea. That feller knowed more'n a dozen blind mules—sed mules were n't fer off, neither. Wall, we passed in the rope, 'n' when we pulled boss up, he gave me t'other end 'n' told me to hole on tighter 'n' a puppy to a root. I tuck the rope, wrapped it 'round me 'n' climt up fifty feet to a pint o' rock right under 'nuther pint 'bout a hundred feet higher, that kinder hung over the pint whar I wuz. Boss 'n' 'tother fellers skedaddled up the crevice 'n' hid.

"Purty soon sumthin' happened. I can't describe it, gents. The hull Canyon wuz full o' blue blazes, flying rocks 'n' loose volcanoes. Both sides o' the gorge, two thousan' feet straight up, seemed to touch tops 'n' then swing open. I wuz sort o' dazed 'n' blinded, 'n' felt ez if the presipasses 'n' the mountains wuz all on a tangle-foot drunk, staggerin' like. The rope tightened 'round my stummick, 'n' I sezed onto it tight, 'n' yelled, 'hole

on, pard, I'll draw you up! Cheer up, my hearty,' sez I, 'cheer up!' Jes az soon 'z I git my footin', I'll bring ye to terry firmy!'

"Ye see, I wuz sort of confused 'n' blinded by the smoke 'n' dust, 'n' hed a queer feelin', like a spider a swingin' an' a whirlin' on a har. At last I got so'z I could see, 'n' looked down to see if the feller wuz a swingin' clar of the rocks, but I could n't see him. The ledge wuz blown clean off, 'n' the Canyon seemed 'bout three thousan' feet deep. My stummick began to hurt me dreadful, 'n' I squirmed 'round 'n' looked up, 'n', darn my breeches, gents, ef I wasn't within ten foot of the gorge, 'n' the feller 'ez wuz blasted out wuz a haulin' on me up.

"Sez I when he got me to the top, sez I, 'which end of this rope wuz *you* on, my friend?'

"'I dunno,' sez he. 'Which end wuz you on?'

"'I dunno,' sez I.

"An' gents to this day we can't tell ef it was which or t'other ez wuz blasted out."

From Gunnison to Marshall's Pass,—the highest station in America,—the line runs through a succession of very beautiful scenes. The summit of the pass is 11,000 feet above sea-level, but as the foot of the main ascent from the eastward is nearly 6000 feet above the same level, the grades are by no means serious, the steepest being 220 feet to the mile. The pass itself is

a depression in the main range, a little to the eastward of Mears, from which a branch leads to Villa Grove and Hot Springs, on the slopes of the Sangré de Christo Mountains. The way down the pass, on the eastern side, is a succession of long zig-zag curves, crossing gullies and cutting through spurs in a somewhat bewildering manner. As the mountains on this part of the route are open and smooth and generally well grassed, the scenery affords a striking contrast to that which we had passed through from the Rio Grande to the summit. Our descent was continuous but slow, the steam being shut off in the engine, and the brakes applied, so as to ensure an uniform rate of speed, and the windings of the road enabled us, from time to time, to obtain views of the great peaks, still covered with snow, which towered above the surrounding chains. Near Cotopaxi we entered the Canon of the Arkansas, which exceeds that of the Gunnison in extent and wonder, as much as both are said to be exceeded in these respects by the Grand Canons of the Colorado. Not having seen the latter, I may say that it appears impossible to conceive any thing more stupendous than that part of the Canon which is known as the Royal Gorge. On entering it from the eastward, the traveller finds himself suddenly locked in between nearly vertical precipitous walls of immense and increasing height, and as the train rushes forward, it seems to be making its

way into the very bowels of the earth. The walls of the chasm, on each side, are gashed and riven, giving passage to lateral streams, whose waters go to swell the impetuous torrent of the main river.

"But how inexpressible,"--says the writer from whom I have already quoted, "are the wonders of Plutonic force it commemorates, how magnificent the pose and self-sustained majesty of its walls, how stupendous the height as we look up, the depth if we were to gaze timidly down, how splendid the massive shadows at the base of the interlocking headlands,—the glint of sunlight on the upper rim and the high polish of the crowning points! One must catch it all as an impression on the retina of the mind's eye,—must memorize it instantly and ponder it afterwards. It is ineffable, but the thought of it remains through years and years, a legacy of vivid recollection and delight, and you never cease to be proud that you have seen it.

"There is more Canon after this—miles and miles of it. In and out of all the bends and elbows, gingerly round the promontories whose very feet are washed by the river, rapidly across the small sheltered nooks, where soil has been drifted and a few adventurous trees have grown. Noisily through the echoing cuttings the train rushes westward, letting you down gradually from the tense excitement of the great chasm to the cedar-strewn ledges, that fade out into the gravel bars

and the park-like spaces of the open valley beyond Cotopaxi."

But these wonderful Canons are not the only, though certainly they are the most remarkable physical features of that part of the Rocky Mountains which lies within the State of Colorado. Above the debouchure of the Platte River, of that of the Arkansas, and of that of the Rio Grande del Norte, this huge mass opens out into extensive amphitheatres, to which the name of Parks has been given, and whose existence and form are evidently due to ancient glacial action. Of these, North Park, headed by the Rabbit Ears and Park View Mountains; Middle Park, on the east side of Long's Peak; Estes Park, on the western side of the same peak, and made famous by Miss Bird's delightful account of her sojourn there; South Park, headed by the western side of Pikes' Peak and other great mountain summits, and San Luis Park, on the western side of the Sangré de Christo Mountains, are the most celebrated. Not less interesting too, are the wonders and beauties of Manitou and its surroundings, which lie at the eastern foot of Pikes' Peak and are reached by a branch line from Colorado springs. The town of Manitou is picturesquely situated on the slopes of the valley of the Fontaine qui Bouille, a tributary of the Arkansas. It contains a large number of clean and comfortable hotels and boarding houses, many of which

are situated on the banks of the river and have handsome balconies affording fine views of Pike's Peak and of other great mountain summits around. There are many beautiful walks in the neighbourhood of the town, but Lovers' Lane is the favourite one, leading as it does to the mineral springs. Of these there are several all strongly impregnated with carbonic acid, the temperature of their waters ranging from 45deg. to 56deg. Fahrenheit. "Coming up the valley," says an authority, "the first is the Shoshone, bubbling up under a wooden canopy, close beside the main road of the village, and often called the 'Sulphur Spring' from the yellow deposit left around it. A few yards further on, and in a ledge of rock overhanging the right bank of the Fontaine, is the 'Navajo,' containing carbonates of soda, lime, and magnesia, and still more strongly charged with carbonic acid, having a refreshing taste similar to seltzer water. From this rocky basin pipes conduct the water to the bath-house, which is situated on the stream a little below. Crossing by a pretty rustic bridge we come to the 'Manitou,' close to an ornamental summer-house, its taste and properties nearly resembling the Navajo. Recrossing the stream and walking a quarter of a mile up the Ute Pass road, following the right bank of the Fontaine, we find close to its brink the 'Ute Soda.' This resembles the Manitou and Navajo, but is chemically less powerful,

though much enjoyed for a refreshing draught. Retracing one's steps to within two hundred yards of the Manitou Spring, we cross a bridge leading over a stream which joins the Fontaine at almost a right angle from the south west. Following up the right bank of this mountain brook, which is called Ruxton's Creek, we enter the most beautiful of the tributary valleys of Maintou. Traversing the winding road among rocks and trees for nearly half a mile, we reach a pavilion close to the right bank of the creek, in which we find the 'Iron Ute' the water being highly effervescent, of the temperature of 44deg. 3min. Fahrenheit, and very agreeable in spite of its marked chalybeate taste. Continuing up the left bank of the stream for a few hundred yards, we reach the last of the springs that have been analysed—the Little Chief; this is less agreeable in taste, being less effervescent and more strongly impregnated with sulphate of soda than any of the other springs, and containing nearly as much iron as the Iron Ute.

"These springs have, from time immemorial, enjoyed a reputation as healing waters among the Indians, who, when driven from the glen by the inroads of civilization, left behind them wigwams to which they used to bring their sick, believing, as they did, that the Good Spirit breathed into the waters the breath of life; they bathed and drank of them, thinking thereby to find a cure for

every ill; yet it has been found that they thought most highly of their virtues when their bones and joints were racked with pain, their skin covered with unsightly blotches, or their warriors weakened by wounds or mountain sickness. During the seasons that the use of these waters has been under observation, it has been noticed that rheumatism, certain skin diseases and cases of debility have been much benefitted, so far confirming the experience of the past. The Manitou and Navajo have also been highly praised for their relief of old kidney and liver troubles, and the Iron Ute for chronic alcoholism and uterine derangements. Many of the phthisical patients who come to this dry bracing air in increasing numbers, are also said to have drunk of the water with evident advantage.

Professor Loew (chemist to the Wheeler expedition), speaking of the Manitou Springs as a group, says, very justly, they resemble those of Ems and excel those of Spa,—two of the most celebrated in Europe.

" On looking at the analyses of the Manitou group it will be seen, that they all contain carbonic acid and carbonate of soda, yet they vary in some of their other constituents. We will, therefore, divide them into three groups of carbonated soda waters: 1, The carbonated soda waters proper, comprising the Navajo, Manitou and Ute Soda, in which the soda and carbonic acid have the chief action. 2, The purging carbonated

soda waters, comprising the Little Chief and Shoshone, where the action of the soda and carbonic acid is markedly modified by the sulphates of soda and potash. 3, The ferruginous carbonated soda waters, where the action of the carbonic acid and soda is modified by the carbonate of iron, comprising the Iron Ute and the Little Chief, which latter belongs to this group as well as to the preceding one."

Whether for mere pleasure or in search of health, Manitou is becoming a place of great and increasing resort, owing chiefly to the facilities for reaching it afforded by the lines of the "Burlington Route" from Chicago, St. Louis, and a host of other cities and towns in the neighbouring states. Not many years ago South Park, in common with all the others to which I have referred, was much frequented by the western hunters, who found in their wild and solitary glens, and in the plains watered by the Arkansas, the Platte, and other rivers, every description of game from the buffalo, the elk, and the big horn, to the huge and dangerous grisly bear. Even still, *in winter*, various kinds of game are said to be obtainable within easy distance from Manitou, driven at that season to the lower grounds by the accumulation of snow on the great mountains. "In summer time," to quote from Lord Dunraven, "beautiful but dangerous creatures roam the park. The tracks of tiny little shoes are more frequent than the less

interesting but harmless footprints of mountain sheep. You are more likely to catch a glimpse of the hem of a white petticoat in the distance, than of the glancing form of a deer. The marks of carriage wheels are more plentiful than elk signs, and you are not now so liable to be scared by the human-like track of a gigantic bear, as by the appalling impress of a number eleven boot."

Besides the walks in its immediate vicinity, and independent of the ascent of Pike's Peak, many beautiful excursions may be made from Manitou, but the Rainbow Falls, the Garden of the Gods and the Cave of the Winds, especially deserve to be visited. Colorado Springs lies to the right of the railway line from Pueblo to Denver. It is well situated, and has already a very considerable population, chief amongst whom are the wealthy mine and ranche owners of the neighbouring districts, who use it as their winter home. It is said, and from all accounts with truth, that within ten miles of the town, there are "more interesting, varied and famous scenic attractions, than in any similar compass the country over."

CHAPTER IX.

The Rocky Mountains and the Prairies—Myths and Legends of the Indians—The Tribes of Colorado, Arkansas and Nebraska —Traits of Character—Their Habits and Customs.

But our interest in the mountains of Colorado, and in the prairies which stretch from them for hundreds of miles to the northward and eastward, is not confined to the grand scenery and mineral resources of the one, or to the rich pastures and agricultural capacity of the other. As man's relations to external nature and to his fellow men have, in all conditions of society, determined the range of his knowledge and the extent of his obligations, it becomes necessary, in order to complete any comparison which may be attempted between the past and present condition of things within the area which comprises these great mountains and plains, that we should know something of the Myths and Legends associated with them, and of the character, habits and customs of the savage people by whom they were inhabited, prior to the intrusion of the civilized race. The Rocky Mountains were always looked upon by the Indians with the utmost veneration. They called them

(says the Abbè Domenech) the "Bridge of the World," and believed that the Manitou,—the spirit or master of life,—resided in one of the more rugged eminences of this great range. The more eastern tribes called them the "Mountains of the Setting Sun," and there placed their ideal paradise, their happy hunting grounds, invisible to mortal eyes. There, too, was the "Land of Souls" or of "Shades," wherein were villages inhabited by the free spirits of the generous and good, who, during life, sought to please the great Manitou, and whose reward was the enjoyment of everlasting happiness. The Indians of the more distant tribes related great prodigies of these mountains. They fancied that when they breathed their last, their spirits would be obliged to run over them, to climb the steepest peaks, passing amid shaking rocks, and snow and furious torrents, and that in this manner, after months of fatigue and danger, they would reach the summit, and from thence discover the Land of Shades, where they could see the souls of the brave and good, dwelling under beautiful tents, pitched in fields of luxuriant verdure, watered by shining rivulets, and filled with buffaloes, elks and roe-bucks. The spirits of those who had behaved righteously during their mortal lives would be allowed to partake of the bliss and riches of that delightful country, while the souls of those who had not been faithful to the Great Spirit would be

obliged to redescend on the western side and roam about the sterile plains of the Great Desert, suffering continual hunger and thirst, rendered all the more poignant by their having seen their former companions happy and enjoying perpetual felicity. There are many beautiful and curious legends connected with the Rocky Mountains, and more especially with Canons of the Gunnison and Arkansas, which are to be found in the works of Schoolcraft, Catlin and others, but the space at my disposal does not permit me to repeat them here. There are also many legends connected with the prairies, amongst which that of the "Magic Circle," translated by Domenech, is especially interesting. In former days, travellers through these great plains came upon broad circular paths completely denuded of vegetation, which were called "Circles of the Prairies." These were, no doubt, caused in some peculiar manner by buffaloes or other wild animals, although their origin has often been assigned to other and more contestible causes. The legend has relation to these circles, and is as follows:—"One day, whilst in the prairie, the hunter Algon arrived at a circular pathway, but there was no trace of footsteps on the surrounding ground. The path itself was even, well beaten and appeared to to have been recently frequented by numerous human visitors. Surprised and puzzled by what he saw, he hid himself in the grass in order to discover the cause

of this apparent mystery. After waiting a few minutes he heard melodious music in the air, the sounds of which reached his ears at regular intervals. Amazed and charmed he stood motionless, but could at first see nothing save a vague white speck, too distant to be distinguished. Gradually it became more visible, and the music more soft and agreeable, and as it approached the place where he lay concealed, he discovered that what he had at first taken to be a tiny cloud, was an osier basket containing twelve young girls of exquisite beauty, each having a sort of little drum on which she tapped, whilst they all sang with superhuman grace. The basket descended into the middle of the circle, and the moment it touched the ground the twelve young girls alighted and began to dance on the little path, at the same time throwing a ball, which was as brilliant as a diamond, from one to another.

" Algon had seen many dances, but none were similar to this one, neither was the music like any he had yet heard ; and the beauty of the dancers surpassed all that his imagination had ever conceived. He admired them all, but being particularly fascinated by the graceful manner of the youngest, he determined to do all in his power to capture her. To effect this he approached the mysterious circle slowly and cautiously, so as not to be perceived, and was just on the point of seizing the

object of his choice, when suddenly the twelve girls sprang into the basket, and ascending rapidly into the air soon disappeared. Algon was in despair at his failure. He cursed his fate exclaiming: 'They are gone for ever, and I shall behold them no more.' He returned to his cabin, sad and dejected, but on the following day he again went out to the prairie, in the hope that his treasure would again be there. He hid himself as on the preceding day, and lo, scarcely had he taken up his position when he heard the same music, and saw the basket redescend with the same young maidens, who, as soon as it touched the earth, began to dance as on the previous eve. Then, for the second time, he advanced towards them, but the moment they perceived him, they jumped into the basket, and were going to recommence their aëriel journey, when the eldest said to her sisters: 'Stay, let us see, perhaps he wishes to teach us how mortals dance and play on earth?' 'Oh! no,' replied the youngest, 'let us quickly ascend, I am frightened,—whereupon they all began to sing, and started for the ethereal regions. Algon went home more distracted and crest fallen than before, but on the morrow he again returned to the prairie. While meditating as to how he could succeed on his third attempt, be found an old trunk of a tree, which harboured countless mice; he thought that the sight of so small a creature would

cause no suspicion to arise among the young girls ; and, thanks to the magic power of an amulet which he wore, he was enabled to assume the form of a mouse, having first taken the precaution to move the trunk of the tree as close as possible to the circle. The twelve sisters again descended and commenced there accustomed diversions. All of a sudden the youngest said to the others, 'Do you see that trunk of a tree? it was not here yesterday!' And she ran towards the basket; but her sisters began to laugh, and, surrounding the object of her fears, threw it down by way of amusement. All the mice immediately took to flight; but they were pursued and killed, with the exception of Algon, who, retaking his natural form of hunter at the very moment the youngest sister had lifted a stick to strike him, sprang upon his prey, whilst her affrigted companions got into the basket, which carried them up speedily.

"The happy hunter wiped away the tears that flowed from the eyes of his conquest; he called her his bride, and sought by every means his heart could suggest to prove his affection for her; he gave her the most tender caresses, and as he was conducting her to his cabin he was careful to put aside the briars and branches, lest they should knock against, or injure the frail and elegant form of his beloved. When he reached his home he considered himself the most fortunate being on earth. Their marriage was at once

celebrated amid every imaginable festivity, and in due time the joy of the hunter was further increased by the birth of a son. But his young wife, being the daughter of a star, found the earth but little suited to her celestial nature; her health declined, and she longed to return to her father once more; yet she carefully concealed her desires from Algon so as not to afflict his heart, for she loved him dearly.

"One day, remembering the incantations enabling her and her former companions to return to the skies, and choosing the occasion of a hunt in which her husband was engaged, she made a little basket of osier twigs, then gathered all sorts of flowers, caught birds, and collected every curiosity that she thought would please her father, took her son with her, and went to the magic circle; here she got into her basket with all her treasures, and commenced the song she had chanted with her sisters in by-gone days. Immediately the basket rose gently in the air, whilst the breath of the prairies wafted the sweet notes of her song to the ears of her husband. That voice and that chant were well known to him. Foreboding some misfortune, he hastened at once to the magic circle; but arrived too late. He saw nothing but a white speck disappearing in the clouds, and heard a feeble and melodious note dying in space, like the last whisper of the breeze, or the last sigh of a babe."

His affliction and despair were very great, but it may be some consolation to my readers to know that, two years afterwards, he was enabled, by the enchantments of his wife, to join her in her starry home, where they are both enjoying everlasting bliss.

It will have been gathered from the preceding chapters that the principal tribes which occupied the area comprising the present States of Utah, Colorado, Kansas and Nebraska in 1848, were the Shoshones (of whom the Diggers are an offshoot), the Cheyennes, the Arapahoes (also connected with the Shoshones), the Sioux and the Pawnees. The Shoshone tribe had for centuries held exclusive possession of the country from the Missouri to that part of the Rocky Mountains which extends from the Bear River Valley to the sources of the Green River. From this tribe many migrations drifted to the southward, and there formed themselves into separate nations, of which the Snakes and Comanches are two of the most important. The Shoshones had previously also inhabited the country watered by the Upper Missouri, from which, however, they were driven by the Blackfeet, after a long and bloody war, the ultimate success of the latter having been chiefly due to the possession of fire arms, which they obtained from Spanish traders settled in Lower California. The Digger branch of this tribe occupied the Great Basin close up to the western slopes of the Wahsatch and

Uintah Mountains, and were (as already mentioned) always looked upon as the lowest type of the North American Indian, a fact due, no doubt, to the peculiar physical conditions of the country they inhabited, and the scanty means of living which it afforded. They were, nevertheless, clever in their mode of adapting themselves to those conditions, and in the simple arts required for procuring, and preserving their food, which consisted chiefly of fish, of the bulbous roots of various plants, of acorns, lizards, grasshoppers, and the larvæ of insects. Their mode of catching grasshoppers was not a little ingenious. A number of holes were dug, deep enough to prevent the insects which fell into them from jumping out again. The Indians then formed a circle enclosing a considerable area infested by the insects, and old and young, armed with bushes of artemisia, drove the grasshoppers before them towards the holes, into which they fell as the circle closed upon them. When trapped they were usually suffocated with the smoke of damp grass, and then placed for keeping in bags made from rushes. These unfortunate people, however, generally suffered much from hunger and cold during the winter months.

In a preceding chapter I have given an account of Fremont's meeting with some of them and with a party of the higher Shoshone, during his journey down

the valley of the Bear River, from which some idea may have been formed of their then condition.

The Cheyennes possessed that part of the country now traversed by the Union Pacific Railway, which lies between the Black Hills and the Rocky Mountains. They were considered one of the finest races of North America, though somewhat inferior in size to the Osages. Their chief wealth consisted of horses, of which they had immense herds, depastured on the prairies watered by the Platte and its tributaries, and they formerly carried on a considerable trade in these animals with the settlers in Kansas and Missouri. They were the boldest horsemen and bravest warriors of the whole region, and their continual wars with the Pawnees and Blackfeet, rendered them surprisingly active and fearless. It was singular that the Government of the United States should, on the annexation of Colorado and Wyoming, have either omitted or forgotten to include this tribe in its bounty to the Indians of the west. The Cheyennes accordingly complained to some American officers, saying :—"We have neither robbed you nor harmed you in any way ; yet you show no attention to us, and you load with presents the Pawnees, who plunder and kill the men of your nation." The Cheyennes, too, had a reputation for greater liberality in their dealings with the white men and of being less given to thieving than the people of other tribes. One

of their chiefs, named O-cum-who-wust, some time ago prevailed upon his countrymen to build permanent dwellings, cultivate the land and rear flocks like the whites, and their condition has consequently much improved. Their traditions resemble those of nearly all the wandering tribes. They say they are descended from a great nation, called the Showays, who lived on a branch of the North Red River, which empties itself into Lake Winnipeg. After obstinate conflicts with the Sioux they were compelled to migrate beyond the Missouri and never found security against their more powerful foes until they took refuge behind the Black Hills.

The Sioux occupied the North Eastern parts of Colorado. They possessed innumerable legends on a variety of subjects, which were transmitted orally from generation to generation, but these appear to have but little value in connection with their early history. They were exceedingly clever in the art of pictography, and were a brave and intelligent people.

During a long period they were constantly at war with the Chippeways, and the following account is given of its origin :—Long before the white men had found their way into the west, the Sioux occupied a town at the mouth of a river much frequented by sturgeon. This town was governed by a powerful chief, who had the control of the river for some dis-

tance above it. Higher up were settlements belonging to the Chippeways, under a chief who was also renowned for his bravery and justice. This chief had married the sister of the chief of the Sioux, by whom he had a son. The tribes had always lived on friendly terms, until one day the Sioux caused the river to be barred with osier gratings, in order to prevent the sturgeons from making their way up the stream. This act occasioned a serious famine among the Chippeways; and their chief, having learned what his brother-in-law had done, sent his son to pray that the bar might be removed, so that the fish might come up the river as formerly. The Sioux chief, instead of acceding to this request,—which his nephew conveyed to him in respectful terms,—laid hold of the young man's head, and passed under the scalp the bone of a deer's leg, cut to a point, saying, "That is all I can do for you."

The poor lad, without making any reply, returned to his tribe, taking care to cover his head. When he had assembled the principal warriors, he showed them the bone which traversed his scalp, his head being much inflamed by the wound. Then he said, "See how I have been treated; we must take up the hatchet and depart to-morrow morning to avenge the insult which has been offered to a warrior of your tribe." He himself naturally became the leader of the expedition,

and commanded his warriors to massacre all who resisted, but to take his uncle alive, which they succeeded in doing. The nephew then took a small sturgeon and forced it into the throat of his uncle, saying, "Since you are so fond of this fish, you shall be allowed to enjoy one until your death." The bar was removed from the river and the Chippeways were relieved from famine, but the Sioux formed alliances with the neighbouring tribes and waged a war with their ancient friends, which nearly proved fatal to all.

There are in the history of the "Blackbird," a renowned chief of the Sioux, traits of great cruelty, which show all the craft of which the red-skins were capable in order to gain their ends, and how willingly they made use of the most horrible means in order to succeed in their plans. He belonged to a section of the tribe which was almost the first that traded with the white itinerant traders from the east of the Mississippi, and it was thus he proceeded:—When a trader arrived in the village he had him conducted to his hut, and there making him unpack his goods, he chose the best of everything, whether coverings, tobacco, beads or vermillion, which he took for himself. He then sent heralds to bid the people to come forward and exchange their furs for the white man's goods, but forbade them to dispute the trader's prices, who thus more than made up for the sacrifice imposed on him by the wily chief, who by

these means soon became possessed of considerable wealth, and, moreover, became very popular amongst the white men who traded with his people. Not so with the people of his tribe, however, who looked upon the matter in quite another light, and who soon began to murmur at a spoliation so injurious to their interests. But while this dissatisfaction was most rife a trader taught the Blackbird the fatal effects of arsenic, and sold him a quantity of that poison, which would render him a terror to his discontented tribe. And so it did, for from that day the chief appeared to his ignorant followers as a supernatural being, for when any one seemed inclined to doubt his authority or to dispute his orders, he predicted his death at a time given; and, as at the hour foretold the unfortunate wretch expired amidst unknown tortures, the terrible prophet became, in a short time, a despot whose power was only equalled by the awe he inspired in those who had witnessed the effects of his anger and vengeance. It is fair, however, to say, that his personal valour was great, and that he added much by his exploits, to the prestige of his tribe.

The Pawnees, who occupied a large part of the eastern side of the Rocky Mountains and the plains stretching towards theMississippi, were, before 1832, a very powerful nation, but in that year more than half the tribe perished by small-pox. The remainder were scattered through Kansas and Nebraska. They were a brave

people, but addicted to plunder and reckless in their cruelty to their enemies. The women cultivated a little Indian corn, but the warriors rarely used anything but animal food obtained by the chase.

In the next chapter will be found a description of a "cerne" or "surround" of buffaloes, that took place during Fremont's first expedition to the Rocky Mountains, which would at first sight appear to indicate a reckless waste of animal life; but it is remarkable that savage man, notwithstanding occasional exhibitions of apparent wantonness and recklessness, rarely interferes with the progress of natural operations to any injurious extent; and, looking to the immense herds of buffalo which existed, even so late as 1842, notwithstanding the great and increasing demand for "robes," we may assume that slaughters of the kind described by Fremont, had but little effect in decreasing their numbers. The following anecdote will serve to show that, even amongst men so savage as the Pawnees, the finer human sentiments were not altogether obliterated from their character. Some years ago a young chief of that nation, son of a noted leader named Old Knife, who, even at the early age of one and twenty, had by his exploits gained the surname of "brave among the brave," put an end, by the following remarkable act of audacious courage, to the barbarous custom of burning prisoners to death which had long been indulged in by his people.

A young woman of the Cadouca nation had been destined to suffer the horrible fate of a prisoner. At the hour fixed for the sacrifice, the victim was tied to the stake in the presence of the whole tribe assembled to witness the ceremony. Just as the fire was about to be put to the faggots, the young warrior (who had prepared unobserved two strong and swift horses, with provisions for a long journey) sprang forward from his place, and delivered the unfortunate woman from the stake. He took her in his arms, and, breaking through the amazed crowd, placed her on one horse and himself mounted the other. Both then dashed off at full speed, leaving the spectators thunderstruck at such a bold and unparalleled proceeding. He conducted the captive through the desert towards her own country, and when near it made her a present of the horse she was on, and gave her provisions, so that she might regain her village without suffering from fatigue or hunger. Such was his popularity amongst his own tribe, that no one attempted to call him to account for this action, his act being considered as an inspiration of the Great Spirit; and the Pawnees from that time ceased entirely to offer up human sacrifices. This story became known at Washington, and made a deep impression on the teachers and pupils of a boarding school for boys and girls, who resolved to raise a subscription amongst the members of the establishment, and with the sum thus

collected to send a commemorative gift to the son of the Old Knife, in token of their admiration for his noble conduct. They consequently had a silver medal struck, with an appropriate inscription, which was sent to the brave Pawnee, with the following letter :—

"Brother,—Accept this mark of our esteem. Wear it always in remembrance of us ; and if thou shouldst have the power to save a poor woman from torture and death, in the name of this souvenir fly to her rescue, and restore her to life and liberty."

To this letter the warrior made an answer, which, literally translated, ran thus :—"Brothers and sisters, —Your medal will give me more pleasure than I ever had, and I will listen to white people more than I have hitherto done. I am glad that my brothers and sisters have considered that my deed was good. I acted in ignorance, not knowing that it was a good action ; but the medal teaches me that I have done well."

The habits and customs of the several above-mentioned tribes varied to a certain extent, but there were many which were common to all. For example, whenever any intercourse became necessary between two tribes, the delegates for the one always approached in a solemn dance, at the same time presenting the calumet or "Pipe of Peace," whilst the "Sachems," or just and wise chiefs of the other, received it with the same ceremony. When war was denounced against an enemy,

it was invariably heralded by a dance expressive of anger and of meditated vengeance. If the Great Spirit was to be invoked, or his beneficence celebrated, if there were rejoicings at a birth of a child, or lamentations for the death of a warrior, there was always a dance appropriate to the occasion, and suited to the sentiments with which they were animated. Indeed, there was scarcely any event of importance, either to the tribe or in the life of any individual belonging to it, which was not celebrated in this manner. Their religion, though of peculiar interest, has always been a difficult subject to understand. It was generally interwoven with gross superstitions and with practices so entirely at variance with the conception of a beneficent Deity, as to preclude any possibility of comparison with the professed religion of any civilized European country: for, although they believed that the Manitou or Great Spirit rewarded the souls of those who had lived good lives, in their acceptation of the term, by admitting them to share in the delights of the happy hunting grounds, they also believed that, during life, he never interposed to prevent their being thwarted or injured by evil spirits, of which numbers were as they thought, on the alert to do mischief, and whom it was therefore their duty and interest to propitiate with prayers and sacrifices. Mr. Galbraith, who, for many years acted as Indian agent amongst the Sioux, described them as bigoted, barbarous and exceedingly superstitious.

They regarded as virtuous most of the acts which we consider vicious. Murder, arson and robbery were treated as the means of acquiring distinction, and the young Indian was taught, from his very childhood, to look upon killing as the highest virtue. In their dances and at their feasts, the warriors recited their deeds of pillage and slaughter as precious *souvenirs*, and the greatest ambition of the young "brave" was to secure "the feather"—as the scalp-lock was euphemistically termed—of his enemy. This was, however, but a record of his having murdered or participated in the murder of some human being, whether man, woman or child was immaterial, and his appetite for slaughter, whetted by a first success, urged him to increase the number of feathers on his bonnet, for an Indian brave was estimated according to the extent of such trophies.

It may, indeed, be said that, amongst the Indians, no individual action was considered a crime, except in the case where the victim happened to be a member of the same tribe, every man acting upon his own judgment, unless controlled by a superior power, which, by popular choice, justified the exercise of authority over him. They believed that when the Great Spirit gave them life, he also endowed them with the right to the free and unconstrained use of all their faculties. But, whilst they were cruel and reckless of the rights of others, they were generally brave, generous and hospitable; and the

Shoshones and Arapahoes were specially distinguished by a remarkable degree of cleanliness in their persons and domestic habits; a circumstance which stood them in good stead when the small pox, shortly after the date of Fremont's explorations, nearly swept from the face of the earth the Crows, Flat-heads, Unbiquas and Blackfeet.

CHAPTER X.

First Explorations of Kansas and Nebraska—Alarms—The "Cerne" of the Buffalos—Fort Laramie—Immigrant Parties—Dangers from Hostile Indians—Present Condition of Country.

But however much our interest may be excited by a study of the myths and legends, and of the habits and customs of the Indians, it is much more strongly evoked by a contemplation of the extraordinary change which took place in the aspect of the country between the Mississippi and the Pacific, as the result of its occupation by a civilised race. Prior to the gold discoveries in California the physical features of this immense area were but little known. It was held solely by Indian tribes, engaged in constant warfare, and whose only intercourse with the white man had relation to the exchange of the skins of the buffalo, the beaver and other animals of the chase, for guns, ammunition, whiskey, blankets and beads. The principal centre of this trade was the town of St. Louis, situated at a short distance below the junction of the Mississippi and Missouri Rivers, and which, at that time, had a population not exceeding 17,000 souls. Chicago had been founded in 1831, but up to 1848 its population did not

exceed 5,000, and its chief business, even for some time after the latter date, was likewise with the Indians, but more particularly with those who occupied the country comprised within the present States of Wisconsin, Iowa and Minnesota.

I have already mentioned that, until 1848-9, the country which now constitutes the States of California, Nevada, Arizona and New Mexico, and parts of Utah and Colorado, was under the direct dominion of Mexico, whose nominal power extended over nearly the whole area between the Pacific Ocean and the Mississippi. Before the independence of Mexico, Spain had been in nominal possession of the same territory, but had not been able to found, or if to found, had been unable to maintain any settlements to the northward of Santa Fé, owing to the persistent hostility of the powerful Indian tribes by which it was inhabited. The consequence was that, although prior to 1848 the nominal sovereignty of Mexico over the country now comprised within the States of Kansas and Nebraska was not disputed, that area, so far as civilized control was concerned, was practically treated as derelict by the subjects of the United States on the eastern side of the Mississippi and Missouri Rivers, and was gradually being occupied by them and brought under the protection of the Union. The cession of California, however, settled all disputes as to the future nationality of the whole

country to the westward, and the only difficulty which the United States immigrants had from thenceforth to contend against was the hostility of the Indian tribes.

The geographical position of St. Louis made it, for long after its foundation, the most important town, and, as it were, the key to the vast country to the west and north-west. It was there that the trappers and hunters, white and Indian alike, annually assembled to lay in supplies of ammunition and provisions, before returning to their hunting grounds; it was there that they disposed of the furs which they had accumulated during the previous year's labour; it was there that they spent, in a few days, and sometimes in a few hours, in gambling and gross debauchery, the earnings obtained during their long and arduous expeditions, often undertaken at the risk of their lives; and it was from thence that the steam-boats employed by the great fur companies were despatched, to transport into the Indian countries along the lines of the Mississippi and Missouri Rivers, the merchandise which they gave in exchange for skins of all sorts. And it was from this point also that all the explorations made under the authority of the United States Government, of the country to the west and north-west, had been despatched.

The history of these expeditions is most interesting and instructive, not only on account of their adventurous

character, but also because they serve to bring before us, in the strongest possible light, the enormous changes which have taken place within the country in question, as one of the not remote consequences of the discovery of "some glittering particles" in the race at Sutter's Mill.

The first organised expedition towards that part of Rocky mountains which lies immediately to the westward of St. Louis, was undertaken by Fremont in 1842. He started from St. Louis early in the month of June of that year, with a party of twenty-five men fully equipped, of whom Leonard Maxwell went as hunter, and Kit Carson as guide. They started on the 12th June, and on the 14th reached the ford of the Kansas. During the journey it was their custom to encamp an hour or two before sunset, when the carts in which their equipment of tents, &c., were carried, were so disposed as to form a barricade some eighty yards in diameter. At nightfall, the horses and mules were driven in and picketed, guard was regularly mounted, and every precaution taken against any surprise attack by the Indians who swarmed over the district in which they were travelling. On the 23rd they had a specimen of the alarms to which travellers in those wild regions were then subject. Proceeding up the valley of the Kansas objects were seen on some distant hills, which disappeared before a glass could be brought to bear upon

them. A man who was at a short distance in the rear, came galloping in, shouting "Indians! Indians!" He reported that he had been near enough to count them, and that he had made out twenty-seven. The party was at once halted, arms were examined and other preparations made for resisting attack; and Kit Carson, springing on one of the hunting horses, crossed the river and galloped off to obtain intelligence of their movements. The supposed Indians turned out to be half-a-dozen elk, which had stood to gaze upon the advancing party, and, looking upon them with suspicion, had made off. On the 28th of June they had another alarm. They had halted at noon at an open reach of the river, which occupied rather more than a fourth of the valley, there only about four miles broad. The camp had been disposed with the usual precautions, the horses grazing at a little distance attended by the guard, and they were all sitting quietly at their dinner on the grass, when suddenly they heard the startling cry, "*Du monde!*" In an instant every man's weapon was in his hand, the horses were driven in, hobbled and picketed, and horsemen were galloping at full speed in the direction of the new comers, screaming and yelling with the wildest excitement. "Get ready my lads!" said the leader of the approaching party to his men, when Fremont's wild-looking horsemen were discovered bearing down upon them. "*Nous allons attrapper des coups de*

baguette." They proved to be a small party of fourteen, under the charge of a man named John Lee, and, with their baggage and provisions strapped to their backs, were making their way on foot to the frontier. A brief account of their fortunes will give some idea of navigation in Nebraska forty-five years ago. Sixty days previously they had left the mouth of Laramie's Fork, some 300 miles above the point at which Fremont was encamped on the Platte, in barges laden with the furs of the American Fur Company. They started with the annual flood, and as their barges drew only nine inches of water, hoped to make a speedy and prosperous voyage to St. Louis, but, after a lapse of forty days, they found themselves only 130 miles from their point of departure. They came down rapidly as far as Scott's Bluffs, where their difficulties began. Sometimes they came upon places where the water was spread over a great extent; and there they toiled from morning until night, endeavouring to drag their boats through the sands, making only two or three miles in as many days. Sometimes they would enter an arm of the river, where there appeared a fine channel, and after descending prosperously for eight or ten miles, would come suddenly upon dry sands, and be compelled to return, dragging their boats for days against the rapid current; and at others, they came upon places where the water lay in holes, and, getting out to float off their boat, would fall

into the water up to their necks, and the next moment tumble over against a sand bar. Discouraged, at length, and finding the Platte growing every day more shallow, they discharged the principal part of their cargoes at a point about 130 miles below Fort Laramie, and, leaving a few men to guard them, attempted to continue their voyage laden with some light furs and their personal baggage. After fifteen or twenty days more struggling in the sands, during which they made but 140 miles, they sunk their barges, made a *cache* of their remaining furs and property in the trees on the bank, and, fastening on their backs what each man could carry, had, on the previous day, commenced their journey on foot to St. Louis.

Their forlorn and vagabond appearance excited the laughter of Fremont and his men, but they, in their turn, a month or two afterwards, furnished the same occasion for merriment to others. Even their stock of tobacco, that *sine quâ non* of a *voyageur*, without which the night fire is gloomy, was exhausted. However, Fremont shortened their homeward journey by giving them a small supply from his own provisions. They gave him, in return, the welcome intelligence that the buffalo were abundant some two days' march in advance, and made him a present of some choice pieces, which were a very acceptable change from the salt pork he and his men had been using. In the interchange of views, and

the renewal of old acquaintanceship, sufficient was found to fill a busy hour; then one party mounted their horses, the other shouldered their packs, and, having shaken hands, they parted. Among them Fremont had found an old companion on the northern prairie, a hardened and hardly-served veteran of the mountains, who had been as much hacked and scarred as a "*vieux moustache*" of Napoleon's "Old Guard." He flourished under the *soubriquet* of La Tulipe, but his real name Fremont never knew. Finding that he was going to the States only because his company was bound in that direction, and that he was rather more willing to return to the mountains, Fremont took him again into his service.

On the 8th July they had a much more serious alarm, of which the following is a compressed account:—

Journeying along, they came suddenly to a place where the ground was covered with horses' tracks, which had been made since rain had fallen, and indicated the presence of Indians in the immediate neighborhood. The buffalo, too, which the day before had been so numerous, were nowhere in sight, another sure indication that there were people near. Riding on, they discovered the carcase of a buffalo recently killed, perhaps the day before. They scanned the horizon carefully with the glass, but no living object was to be seen. For the next mile or two the ground was dotted with buffalo carcases, which showed that the Indians had made a surround, and were

in considerable force. They went on quietly and cautiously, keeping the river bottom, and carefully avoiding the hills, but they met with no interruption and began to grow careless again. They had already lost one of their horses and Basil Lajeinesse's mule showed symptoms of giving out, and finally refused to advance, being what the Canadians call *resté*. He therefore dismounted, and drove her along before him, but this was a very slow way of travelling. The chief party had inadvertently got about half a mile in advance, but some Cheyennes who were with Fremont were generally a mile or two in the rear. Among the hills, about two miles to the left, and which there were low and undulating, some dark looking objects had for some time been seen, and were supposed to be buffalo coming to water; but, happening to look behind, Maxwell saw the Cheyennes whipping up furiously, and another glance at the dark objects showed them at once to be Indians, coming at full speed.

Had Fremont and his party been well mounted, and disencumbered of instruments, they might have set them at defiance, but as it was they were fairly caught. They endeavoured to gain a clump of timber about half-a-mile ahead; but the instruments and the tired state of the horses, did not allow them to go faster than a steady canter, and the Indians were gaining on them fast. At first they did not appear to be more than 15 or 20 in

number, but group after group darted into view at the top of the hills, until all the little eminences seemed in motion, and, in a few minutes from the time they were first discovered, 200 to 300, naked to the breech cloth, were sweeping across the prairie. In a few hundred yards Fremont discovered that the timber he was endeavouring to make, was on the opposite side of the river, and before they could reach the bank, down came the Indians upon them.

In a few seconds more the leading man, and perhaps some of his companions, would have rolled in the dust, for Fremont's men had jerked the covers from their guns, and their fingers were on the triggers. Men, in such cases, generally act from instinct, and a charge from 300 naked savages is a circumstance not well calculated to promote a cool exercise of judgment. Just as they were about to fire, Maxwell recognised the leading Indian and shouted to him in his own language, "You're a fool, damn you! Don't you know me?" The sound of his own language seemed to shock the savage, and swerving his horse a little, he passed like an arrow. He wheeled as Fremont rode out towards him, and gave him his hand, striking his breast and exclaiming "Arapaho!" They proved to be a village of that nation among whom Maxwell had resided as a trader a year or two previously, and recognised him accordingly. Fremont's other men were soon in the midst

of the band, answering as well as they could a multitude of questions, of which the very first was, of what tribe were the Indians who were coming in the rear? They seemed disappointed to know that they were Cheyennes, for they had fully anticipated a grand dance round a Pawnee scalp that night.

The chief showed Fremont his village at a grove on the river six miles ahead, and pointed out a band of buffalo on the other side of the Platte, immediately opposite, which, he said, they were going to surround. They had seen the band early in the morning from their village, and had been making a large circuit to avoid giving them the wind, when they discovered Fremont's party. In a few minutes the women came galloping up, astride on their horses, and naked from their knees down and their hips up. They followed the men, to assist in cutting up and carrying off the meat.

The wind was blowing directly across the river, and the chief requested Fremont to halt where he was for a while, in order to avoid raising the herd. They therefore unsaddled the horses, and sat down on the bank of the river to view the scene; and their new acquaintances rode a few hundred yards lower down, and began crossing the river. Scores of wild-looking dogs followed, looking like troops of wolves, and having, in fact, but little of the dog in their composition. Some of them remained with Fremont, and he checked one of the men,

whom he found aiming at one, which he was about to kill for a wolf. The day had become very hot. The air was clear, with a very slight breeze ; and now at 12 o'clock, while the barometer stood at 25deg. 20min., the attached thermometer was 108deg. The Cheyennes had learned that at the village there were about 20 lodges of their own people, including their own families. They, therefore, immediately commenced making their toilet. After bathing in the river, they invested themselves in some handsome calico shirts which they had stolen from Fremont's men, and spent some time in arranging their hair, and painting themselves with vermilion. While they were engaged in this satisfactory manner, one of their half-wild horses, to which the crowd of prancing animals which had just passed, had recalled the freedom of her existence among the wild droves on the prairie, suddenly dashed into the hills at the top of her speed. She was their pack horse, and had on her back all the worldly wealth of the poor Cheyennes, all their accoutrements, and all the little articles which they had picked up amongst their companions, with some few presents Fremont had given them. The loss which they seemed to regret most, however, were their spears and shields, and some tobacco. But they bore it all with the philosophy of the Indian, and laughingly continued their toilet, although they appeared a little mortified at the thought of returning to

the village in such a sorry plight. "Our people will laugh at us," said one of them, "returning to the village on foot, instead of driving back a drove of Pawnee horses." He asked Fremont if he loved his sorrel hunter very much, to which he replied that he was the object of his most intense affection. Far from being able to give, Fremont was himself in want of horses, and any suggestion of parting with the few he had was met with a peremptory refusal. In the meantime, the slaughter of the buffaloes was about to commence on the other side. So soon as they reached it, the Indians separated into two bodies. One party proceeded directly across the prairie towards the hills, in an extended line, while the other went up the river; and instantly, as they had given the wind to the herd, the chase commenced. The buffalo started for the hills, but were intercepted and driven back toward the river, broken and running in every direction. Clouds of dust soon covered the whole scene, preventing any but an occasional view. It had a very singular appearance at a distance, especially when looking with a glass. Fremont was too far to hear the report of the guns, or any sound; but at every instant, through the clouds of dust which the sun made luminous, he could see for a moment two or three buffalo dashing along, and close behind them an Indian with his long spear or other weapon, and instantly again they disappeared. The apparent silence, and the dimly seen

figures flitting by with such rapidity, gave it a kind of dreamy effect, and seemed more like a picture than a scene of real life. It had been a large herd when the *cerne* commenced, probably 300 or 400 in number; but though Fremont watched them closely, he did not see one emerge from the fatal cloud, where the work of destruction was going on. After remaining there about an hour they resumed their journey in the direction of the village.

Gradually as they rode on, Indian after Indian came dropping along, laden with meat; and by the time they had neared the lodges, the backward road was covered with the returning horsemen. It was a pleasant contrast with the desert road they had been travelling. Several had joined company with them, and one of the chiefs invited them to his lodge. The village consisted of about 125 lodges, of which twenty were Cheyennes, the latter pitched a little apart from the Arapahoes. They were disposed in a scattering manner on both sides of an irregular street, about 150 feet wide, and running along the river. As Fremont and his party rode along, they remarked near some of the lodges, a kind of tripod frame, formed of three slender poles of birch, scraped very clean, to which were affixed the shield and spear with some other weapons of a chief. All were scrupulously clean: the spear head was burnished bright, and the shield white and stainless. It reminded him of the days

of feudal chivalry; and when, as he rode by, he yielded to the passing impulse and touched one of the spotless shields with the muzzle of his gun, he almost expected a grim warrior to start from the lodge and resent his challenge.

The master of the lodge spread out a robe for him to sit upon, and the squaws set before him a large wooden dish of buffalo meat. The chief had lighted his pipe in the meanwhile, and when it had been passed round, dinner was commenced, while he continued to smoke. Gradually, five or six other chiefs came in, and took their seats in silence. When dinner was finished, the host asked Fremont a number of questions relative to the object of his journey, of which Fremont made no concealment; telling him, simply, that they were making a visit to see the country preparatory to the establishment of military posts on the way to the mountains. Although this information was of the highest interest to them, and by no means calculated to please them, it excited no expression of surprise, and in no way altered the grave courtesy of their demeanour. The others listened and smoked. He remarked that, in taking the pipe for the first time, each had turned the stem upward with a rapid glance, apparently as an offering to the Great Spirit, before he put it into his mouth. A storm had been gathering for the past hour, and some pattering drops on the lodge warned Fremont that he had

some miles to go to camp. Some Indians had given Maxwell a bundle of dried meat, which was very acceptable, as they had nothing; and springing upon their horses, they rode off at dusk in the face of a cold shower and driving wind. They found their companions under some densely foliaged old trees, about three miles up the river. Under one of them lay the trunk of a large cotton-wood, to leeward of which the men had kindled a large fire, and there they sat and roasted the meat in tolerable shelter. Nearly opposite was the mouth of one of the most considerable affluents of the south fork, *la Fourche aux Castors* (Beaver Fork), heading off in the ridge to the south-east. From a careful study of Fremont's itinerary, I am satisfied that the last of the above occurrences took place not far from the site of the present City of Denver.

On the 13th July he reached Fort Laramie, where he and his party were most cordially received. They pitched their camp on the bank of the river, whose waters were clean and cool, and most refreshing, when contrasted with the muddy waters of the Platte, which they had so long been using. After describing the fort, and the character and difficulties of the trade carried on with the Indians, he informed us that for several years the Cheyennes and Sioux had gradually become more and more hostile to the whites, and in the latter part of August, 1841, had had a rather severe engagement with

a party of sixty men, under the command of Mr. Frapp, of St. Louis. The Indians lost eight or ten warriors, and the whites had their leader and four men killed. This fight took place on the waters of Snake River, and it was this party, on their return under Mr. Bridger, which had spread so much alarm among his people. In the course of the spring two other small parties had been cut off by the Sioux, one on their return from the Crow nation, and the other among the Black Hills. Some emigrants to Oregon and a party under Mr. Bridger met at Laramie a few days before Fremont's arrival. Divisions and misunderstandings had grown up among them; they had become somewhat disheartened by the fatigue of their long and wearisome journey, and the feet of their cattle were so much worn as to incapacitate them for travelling. In this situation, they were further discouraged by the hostile attitude of the Indians, and the new and unexpected difficulties which sprang up before them. They were told that the country was entirely swept of grass, and that few or no buffalo were to be found on their line of route; and that, with their weakened animals, it would be impossible to transport their heavy waggons over the mountains. Under these circumstances they disposed of their waggons and cattle at the forts, selling them at the prices they had paid for them in the States, and taking in exchange coffee and sugar at one dollar a pound, and miserable worn-out

horses which died before they reached the mountains. Mr. Boudeau informed Fremont that he had purchased thirty, and the lower fort eighty head of fine cattle, some of them of the Durham breed, at ridiculously low prices. Mr. Fitzpatrick, whose name and high reputation were well known, had reached Laramie with Mr. Bridger, and the emigrants were fortunate enough to obtain his services to guide them to the British post of Fort Hall, about 250 miles beyond the South pass of the mountains. They had started for this post on the 4th of July, and immediately after their departure a war party of 350 braves set out upon their trail. As their principal chief or partisan had lost some relations in the recent fight, and had sworn to kill the first whites on his path, it was supposed that their intention was to attack the party should a favourable opportunity offer; or, if they were foiled in this by the vigilance of Mr. Fitzpatrick, they would content themselves with stealing horses and cutting off stragglers. They had been gone but a few days before Fremont's arrival at Laramie.

The effect of the engagement with Mr. Frapp had greatly irritated the hostile spirit of the savages; and immediately after the fight, the Gros Ventres had united with the Oglallahs and Cheyennes, and taken the field in great force, so far as Fremont could ascertain, to the amount of 800 lodges. Their object was to make an attack on a camp of Snake and Crow Indians and a body

of about 100 whites, who had made a rendezvous somewhere in the Green River valley, or on the Sweet Water. After spending some time in buffalo hunting in the neighbourhood of the Medicine Bow Mountain, they were to cross over to the Green River waters, and return to Laramie by way of the South Pass and the Sweet Water valley. According to calculation, they expected to find the tribes and white people somewhere near the head of the Sweet River. Fremont subsequently learned that the party led by Mr. Fitzpatrick were over-taken by their pursuers near Rock Independence, in the valley of the Sweet Water, but were saved from surprise through Mr. Fitzpatrick's vigilance and skill, and, small as his force was, the Gros Ventres and their allies did not venture to attack him openly. Mr. Fitzpatrick lost one of his party by an accident, and continuing up the valley, came suddenly upon a large Indian village, from which they met a doubtful reception. Long residence and familiar acquaintance with the tribes generally, had, however, given Mr. Fitzpatrick great personal influence among them, and a portion of the people of the village were disposed to let him pass quietly, but by far the greater number were inclined to hostile measures, and the Chiefs spent the whole of one night in council—during which time they kept the little party in the midst of them,—debating the question of attacking them the

next day. But the influence of "the Broken hand," as they called Mr. Fitzpatrick, (one of his hands having been shattered by the bursting of a gun), at length prevailed, and obtained for them an unmolested passage; but they sternly assured him that the path was no longer open, and that any party of whites that should thereafter be found upon it, would meet with certain destruction. From all that Fremont had been able to learn, he had no doubt that the emigrants owed their lives to Mr. Fitzpatrick.

Thus, it would appear, that the country was swarming with scattered war parties, and it is little to be wondered at that so much alarm prevailed among his own men. Carson, one of the best and most experienced of the mountaineers, fully supported the opinion given by Bridger, of the dangerous state of the country, and openly expressed his conviction, that Fremont and his people would not escape without some sharp encounters with the Indians. In addition to this Carson made his will, a circumstance which very much increased the alarm of the others. In fact, many of them had become so much intimidated, that they had to be at once discharged. A few days after this he reached Fort Platte, situated at the junction of the Laramie River with the Nebraska. Here he heard a confirmation of the statements given above. The party of warriors, which had started a few days previously on the trail of the

emigrants, was expected back in fourteen days, to join the village with which their families and the old men had remained; and some Indians had just come in who had left them on the Laramie Fork, about twenty miles above Fort Platte. Mr. Bissonette, one of the traders belonging to Fort Platte, urged the propriety of Fremont's taking on with him an interpreter and two or three old men of the village, in which case he thought there would be little or no hazard in encountering any of the war parties. The principal danger was in a hidden and unexpected attack, before they knew who Fremont was; but, as the Indians generally dreaded to bring upon themselves the military force of the United States, the actual danger would be much diminished by the services of an intrepreter as far as the Red Buttes, Fremont being quite satisfied that he could sufficiently guard against surprises. Mr. Bissonette was desirous of joining the war party on its return, for purposes of trade, and it therefore suited his views, as well as Fremont's, to go with the latter to the Buttes, beyond which point it would be impossible to have prevailed on the Sioux to venture, on account of their fear of the Crows. From Fort Laramie to the Red Buttes, by the ordinary route then followed, was 135 miles, and, though that point lay only on the threshold of danger, it seemed well to Fremont to secure the services of an intrepreter even thus far.

I have compiled the foregoing accounts from Fremont's reports and other sources, in order that some idea may be formed of the condition of the present States of Kansas and Nebraska, and indeed of the whole of the vast country to the westward of the Mississippi, prior to the year 1848, a condition which was rapidly changed, however, after the discoveries of gold in California, mainly by the operation of causes which will be dealt with in the next chaper.

And how different was that condition from the present! It is true, that the scenery of the Rocky Mountains is unsurpassable in beauty and grandeur; it is true, that within and around them, are vast tracts of country in the highest degree suitable for agricultural and pastoral pursuits; and it is clear that the construction of the lines of railway which connect the two great oceans must, sooner or later, have led to their occupation for those purposes; but it is equally clear that neither scenic attractions nor agricultural advantages would of themselves have sufficed to bring about such changes as have actually taken place.

Now, instead of the trail of the Indian and the trapper, the great plains of Kansas and Nebraska, right up to the foot of the Rocky Mountains, are covered with a net-work of railways, which connect every part of them with the through lines of communication to the Pacific, on the one hand, and the Atlantic and the Gulf of Mexico, on the other. Instead of a long and

painful journey, such as that undertaken by the Mormons, when driven out of Nanvoo, or by the Western migrants who followed the Columbia trail, and requiring upwards of a year of continuous travel, during which they were exposed to constant danger and hardship, the journey may now be accomplished in a few days, with all the conveniences, and only the risks incident to ordinary railway travelling. Instead of the villages and wigwams of the Indians, and the solitary forts of the traders, fortified to resist aggression, there are now within the same area, large cities and towns occupied by thousands of people in the enjoyment of all the arts and comforts of civilized life. Instead of a desultory commerce with savage tribes, who visited the trading posts only to barter the spoils of the chase for arms and ammunition, intended to be used chiefly in ministering to their love of treachery and thirst for blood, all the occupations and industries of an advanced community are now being carried on, by an already immense and rapidly increasing population. And instead of the Indian savages leading wandering and unsettled lives, drawing nothing direct from the soil, engaged in constant warfare, and carrying on their limited pursuits with their lives in their hands, there are now thousands of cultivators and miners who live in peace, and whose labours are producing, abundantly, the means of subsistence for themselves and their families, and extracting from the mountain slopes almost fabulous mineral wealth.

CHAPTER XI.

Denver—The Mines at Silverton and Leadville—Strange Incidents—The "Smelters"—Rapid Progress and Beauty of the City.

I reached Denver late on the night of the 17th June, the train in which I travelled having been delayed from a variety of causes. I found excellent accommodation at the Windsor Hotel, which was much superior to any of the hotels in Salt Lake City. The weather continued fine, but very hot, and but for the abundance of delicious iced drinks obtainable all over the city, and indeed, all over America, the fatigue of wandering about the streets, interesting as they were in point of novelty, would have been very severe.

If, when Miss Bird visited Denver, it was no longer the Denver of Hepworth Dixon, it certainly was no longer the Denver of Miss Bird, when I saw it. Not only had the lines of railway, projected at the time of her visit, been completed, but many others had been constructed which had not then been thought of, and instead of the waggon ride to the mountains, with tent, provisions, bedding and stove, which the traveller then had to put up with, he may now reach every part of the Rocky

Mountain Range in a few hours by rail, with the advantage of a luxurious refreshment car attached to the train.

Denver has well been called "the marvellous city of the plains." It stands at an elevation of upwards of 5000 feet above sea level, which insures for it a pure and invigorating air, even during the hottest season of the year. The water supply is excellent. It is partly derived, by pumping, from the Platte River, the water being forced all over the city with such strength, that no other engine is required to deliver a strong stream through the hose, in case of fire; and partly brought in an open flume, from a distance of about twelve miles, and then distributed in side channels along the whole of the streets. The force-pump supply is so abundant, too, as to enable the gardens attached to all the private residences in and immediately around the city, to be thoroughly irrigated, which gives them, as well as the streets in which they are situated, an exceeding and delicious aspect of freshness. By its aid, moreover, the streets themselves are kept free from dust, which would otherwise render traffic intolerable and cause enormous damage to all the finer classes of goods. The present population exceeds 75,000, and there is clear evidence that it is rapidly increasing. In fact, there seems to be no reason why Denver should not, ere long, (as indeed its citizens expect it to do,) become the largest city between Chicago and San Francisco.

Much of its prosperity is undoubtedly due to the construction of the various lines of railway known as the Burlington route, which, with the Kansas division of the Union Pacific, and the Atchison and Topeka lines, forms a perfect network extending over Kansas and Nebraska, the proprietors of which, by a wise and liberal policy, have contributed much to the development of every part of the country through which it passes. Denver had a population of 7000 only in 1870, but during the previous year the foundation of the mineral industries of the Rocky Mountains had been well laid. Its progress from that time became certain. In the following year the population increased to 15,000, and the tax valuation of the city rose from three to ten millions of dollars. Owing to some over speculation in 1873, this sudden flush received a check which lasted for two or three years. But the business people of Denver successfully weathered the storm, and 1877, —a year of unexampled prosperity for the miners, the farmers, and the stock-owners of Colorado,—yielded no less than $15,000,000 net profit, to the wealth of those who were engaged in those industries. The result was to give a further great impulse to the trade and business of the city, which have not since received a check.

It is well built, on the ordinary plan of American cities generally. Many blocks in succession, in various parts of the town, are occupied by handsome houses, in

endless variety of architecture, each surrounded by its lawn and garden abounding in beautiful flowers. They are all nice looking, whilst many of the larger ones present an attractive appearance. A large number of the houses have flat roofs, from which, where sufficiently lofty, magnificent views of the great mountain peaks are obtained. The public buildings, and especially the Capitol, are remarkably fine, the latter standing upon an elevation, which commands excellent views over the whole city. It has also a branch of the United States Mint, but the work there is at present confined to assays only. A handsome building is in course of erection, with all the necessary appliances for carrying on this class of work on a large scale. Whether coinage will be added has not yet been finally determined. Independently of the great "Smelters," to which I will hereafter allude more at length, Denver contains many extensive manufactories, including iron works of various kinds, machine shops, woollen mills, glass works, boot and shoe factories, carriage and harness factories, flour mills, breweries, where, owing to the facility for obtaining supplies of ice from the neighbouring mountains, large quantities of excellent lager beer are made, and a variety of other works in which all the industries necessary for satisfying the requirements of a civilized people are carried on. It is a remarkable fact, too, that so great are the profits which accrue to the owners of these

various works, and, indeed, even to the great mass of the retail traders in the city, from the exercise of their several undertakings and pursuits, that nearly every resident in it has a direct *financial* interest in one or more of the mines, farms, and cattle and sheep stations, which obtain from it their current supplies of goods. But it is clear that the rapid progress of Denver, and, indeed, of Colorado generally, is mainly due to the discovery and utilization of the enormous mineral resources of the Rocky Mountains, of which Silverton, Silver Cliff, Leadville, Lake City, Ouray and Crested Butte, are the chief centres. My space, however, will only permit me to allude to two of the more remarkable of these districts.

The mines at Silver Cliff are said to be very singular in character. They were discovered in July 1877, by Mr. R. Edwards, of the firm of Edwards Brothers, then carrying on sawmills in Texas and Grape Creeks. On his way one evening from one of the mills to Rosita, Mr. Edwards stopped in the shade of a low bluff of jet-stained reddish rock, which stood out from the slope of the hill on the western side of the valley, seven miles north of his destination. Struck with the peculiar appearance of the rock he took some specimens, which on assay proved to be silver ore, yielding twenty-four ounces to the ton. His discovery having become known, a large number of persons from Rosita migrated

to the rock, which they agreed to call Silver Cliff. Under the impression, however, that gold would be found, they began to dig for it in the ordinary way, but as their efforts came to nothing, the place was soon abandoned. In the spring of 1878 some fresh prospectors tried the ground for silver, and located the "Racine Boy" mine and various others, which have since proved to be very productive. The Hardscrabble mining district, in which Silver Cliff and Rosita are situated, lies on the west side of the foot hills of the Mojada Mountains, the streams from which flow into the Arkansas, through a Canon some few miles to the east of Canon City. The geological formation of this rich mineral belt is very peculiar and interesting, and is thus described in a work on the geology of this part of the Rocky Mountains:—

"Resting upon and against the granite of the Wet Mountain Range and its higher foothills, and extending down into the valley beyond the southern line of the belt, lies an enormous deposit of porphyry or trachyte, a volcanic rock poured out and consolidated during the tertiary period. Its width is at least five miles, and its length is probably fifteen or twenty. Extending into the trachyte formation from the southwest, and following its general direction, is a tongue-shaped mass of granite about three-fourths of a mile wide and at least seven or eight miles long. When the trachyte was poured out,

this granite apparently formed a ridge which rose above the level of the fluid mass of the surrounding volcanic rock, and therefore was not covered by it. That it does not now stand higher than the surrounding country does not disprove this theory, because there are everywhere to be found, evidences of terrible convulsions since the trachyte was deposited, which have completely changed the face of this entire region. The mines here are found both in the granite and the trachyte. Winding through the porphyry in a serpentine course, there is also a stream of obsidian, as it is called here, or volcanic glass mixed with trachyte and quartz boulders. This stream, where it has been examined, varies from a few feet to many rods in width, and in crevices of the boulders, which form the mass of it, were found, on the Hecla claim, some very rich specimens of horn silver.

"At Silver Cliff, and north of these especially, the trachyte rock has been shaken up and fractured in all directions, and in many places the crevices have been filled with iron and manganese which has become oxidized, and with chloride of silver. This is the free milling ore which is found in all the mines that lie directly north of this town and adjoining it. The trachyte is of itself yellowish white; when it is stained with the black oxide of manganese and the red oxide of iron that variegates the ores, it is sure to carry silver,

though this (in the form of a chloride) can rarely be seen. Sometimes, however, the silver can be seen upon the surface of a fracture in the form of a green scale, or appears in little globules of horn silver. While the rich ore is discovered in large masses, surrounded by leaner or less valuable rock, there is nowhere in the chloride belt anything that looks like a vein. The rock just covers the entire face of the country over an area of two miles long and half a mile wide, and the whole mass of it contains at least a small quantity of silver.

"The theory of the geologists accepted by the miners is, that the trachyte, after it become solidified, was shaken and broken up by some great convulsion, and that, simultaneously or afterward, silver, iron, manganese, and the other metals, of which traces are found in the rock, were disseminated through crevices, either in water solutions or volatilized in the form of gases. These solutions or gases are supposed to have come up through cracks in the earth's crust. Such a deposit is called in the old world 'stockwork,' and Professor J. S. Newberry, in writing recently of 'The Origin and Classification of Ore Deposits,' mentions this as one of the two most important examples of this kind of deposit that have come under his observation. The other is the gold deposit in Bingham Canon, Utah. None of the oldest miners ever saw before any ore that looked like this at Silver Cliff; and this explains their failure

to discover its value until recently. The same is true of the quartzite gold ore in Bingham Canon. The miners worked for years there getting out silver-lead ores, but threw aside the gold ore as waste, not dreaming of its value."

The history of the discovery of silver ores at Leadville is even more remarkable than that at Silver Cliff. The story is well told in an article, headed the "Camp of the Carbonates," by Ingersoll, printed in *Scribner's Monthly* for October 1879, which contains many anecdotes of great interest, of the hardships and adventures endured by the early mining population:—

"After the rush to Pike's Peak, in 1859, which was dissappointing enough to the majority of prospectors, a number of men pushed westward. One party made their way by the Ute Pass into the grand meadows of South Park, and from thence into the Arkansas valley, up which they proceeded, searching unsuccessfully for gold, until they reached a wide plateau, on the right bank, where a beautiful little stream came down. Following this nearly to its source, along what they called California Gulch, they were delighted to find *placers** of gold. This was in the midsummer of 1860, and before the close of the hot weather, ten thousand

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* Placer was the name given by the Spaniards to what in Australia are known as alluvial diggings.

people had emigrated to the Arkansas, and $2,500,000 worth of gold had been washed out, one of the original explorers taking twenty-nine pounds of gold away with him in the fall, besides selling, for $500, a 'worked out' claim, from which $15,000 was taken within the next three months. This same 'exhausted' gravel has since been washed a third and fourth time with profit. It was not long, however, before the placers began to be exhausted, and the settlement, formed whilst they were in full swing, was gradually abandoned, the last act being to pull down the old log gambling hall, and to pan two thousand dollars out of the dirt, accumulated near the spot where the gamblers had dropped their coveted gains.

"One feature of this old placer-bar had impressed itself unpleasantly upon all the gold seekers. In the bottoms of their pans and rockers, at each washing, there accumulated a black sand, so heavy that it interfered with the proper settling of the gold, and was so abundant that it clogged the riffles. Who first determined this obnoxious black sand to be carbonate of lead is uncertain. It is said it was assayed in 1866, but not found valuable enough to pay transportation to Denver, then the nearest point at which it could be smelted. One of the most productive mines now operated is said to have been discovered in '67, and in this way; Mr. Long, at that time the most poverty-

stricken of prospectors, went out to shoot his breakfast, and brought down a deer. In its dying struggles the animal kicked up the earth, which appeared so promising that Long and his partner Derry located a claim on the spot. The Camp Bird, Rock Lode, La Plata and others were opened simultaneously outside the placers, but all these were worked for gold, and though even then it seemed to have been understood, in a vague way, that the lead ores were impregnated with silver, nobody profited by the information. Thus years passed, and many an old campaigner hunted and even mined at what now is Leadville, and never suspected the wealth he trampled upon.

"Among the few men who happened to be in the region in 1877, was Mr. A. B. Wood, a shrewd practical man, who, finding a large quantity of the heavy black sand, tested it anew and extracted a large proportion of silver. He confided in Mr. William H. Stevens, and they together began searching for the source of this sand drift, and decided it must be between the limestone outcropping down the gulch and the porphyry which composed the summit of the mountain. Sinking trial shafts, they sought the silver mean. It took time and money, and the few placer-washers there laughed at them for a pair of fools; but the men said nothing, and in the course of a few weeks they 'struck it.' Then came a period of excitement and

particularly lively times for the originators of the enterprise. Mr. Stevens was a citizen of Detroit, and, finding a chance for abundant results from labour, but no laborers wherewith to 'make the riffle,' he went back to Detroit and persuaded several scores of adventurous men to come out here and amuse themselves with carbonates. They came with high anticipations of sudden wealth and the fulfilling of wide ambitions,—came to find the snow deep upon the ground, and winter bravely entrenched among the gray cliffs of Mosquito and the Saguache. No one could work; every-one was tantalized and miserable: discontent reigned. It was the old story of Baker and the San Juan silver fields. They took Wood and Stevens, imprisoned them in a cabin, and even went so far toward the suggestion of hanging as to noose the rope around their necks. At this critical moment reprieve came in the shape of a capitalist, who appeased the hungry crowd with cash, and stayed their purpose until the weather moderated and digging could be begun.

"As spring advanced and the mountains became passable, there came a rush into the camp, for the report of this wonderful regeneration of the old district had spread far and wide. The Denver newspapers took up the laudation of the region. The railways approaching nearest, advertised the camp all over the east for the sake of patronage; and many an energetic

prospector, and greedy saloon-keeper, and many a business man who wanted to profit by the excitement, started for Leadville. To be first there was the aim and ambition of hundreds of excited men; and, to accomplish this, human life was endangered, and mule flesh recklessly sacrificed. Companies were organized, who put on six-horse stages from Denver, Canon City and Colorado Springs, and ran three or four coaches together, yet private conveyances took even more than the stages, and hundreds walked, braving the midwinter horrors of Mosquito pass.

"Meanwhile, an almost continual procession of mule and ox-trains, were striving to haul across that frightful hundred miles of mountains, the food, machinery, and furniture which the new settlement so sorely needed, and which it seemed so impossible to supply. Ten cents and more a pound was charged for freight, and prices ranged correspondingly high, with an exorbitant profit added. Hay, for example, reached $200 per ton.

"But in the beginning of 1879 this steady current, which had begun to flag in the last months of 1878, burst into a perfect freshet of travel and discovery. Every day chronicled more large additions to the body of explorers, more new accessions of wealth, more additional tappings of the silver deposits which were firmly belived to underlie every square foot of the region. It seemed all a matter of luck, and skilled

prospecting found itself at fault. The spots old miners had passed by as worthless, 'tenderfeet' from Ohio dug down upon, and showed to be rich in 'mineral.' Innumerable incidents might indeed be related, of the patience and expense and hardships which resulted in failure; of the equal pluck and endurance that brought success; of happy chance or perfect accident divulging a fortune at the most unexpected point. The miners have a proverb, 'Nobody can see into the ground,' and the gamblers an adage, 'The only thing sure about luck is that it's bound to change;' but although in the ordinary affairs of life 'hope deferred' is said to 'make the heart sick,' the miner, rarely daunted, even by the most persistent ill-fortune, exclaims 'never say die, old man, better luck next time.'"

As may be assumed, the process of winning the ores was necessarily dependent on the geological conditions under which they occurred. These are described, in the article already alluded to, and are particularly interesting, but I can do little more than refer to them here. It appears that the ores are chiefly found in horizontal beds, and that when these have been tapped by shafts from the surface, horizontal drifts or passage ways are made into the rock, from the bottom of the shaft. When got by this means the ore is raised from the mine by some one of the many appliances ordinarily used for that purpose. On reaching the surface it is

examined and sorted by an experienced person, the best pieces being thrown in a heap by themselves, while the ordinary ore is cast upon the "dump" or pile, which accumulates at the mouth of the mine. From the dump this less valuable ore is hauled away to be sold, while the picked lots are put in hundred-pound sacks, about as large as quarter-barrel flour bags, before being disposed of. Very rich ore is bought by regular purchasers, who usually forward it to smelting-works either at Pueblo, Denver or St. Louis, or at some of the eastern cities. The inferior grades are sold by the ton, generally to some one of the dozen smelters in Leadville, the price being governed by the market quotations of silver in New York on the day of the sale, less several deductions, amounting in all to about twenty five per cent., as the reducer's margin for profit, and plus three to five cents per pound for all the lead above twenty-one per cent. which the ore carries. Silver and gold are estimated in ounces, lead and copper in percentages, but allowance is not made for both of the latter metals in the same ore. The ore is hauled to the smelting works by four or six-mule teams for the most part, the driver not sitting on the wagon, but riding the nigh wheeler, guiding his team by a single very strong rein which goes to the bits of the leaders, and handling the brake by another strap. He is in the position of a steersman in the middle of his craft, and

his "bridge" is the saddle. Every load, as it is brought in, is set upon the scales and weighed, recorded and shovelled into its proper bin, from which it is only removed to be crushed and treated.

I have selected the cases of Silver Cliff and Leadville as illustrations of the mineral wealth of the mountains of Colorado, not because they throw other districts into the shade, but on account of the many interesting and remarkable features which their history and development present. It would be difficult, indeed, to form any estimate of the extent of that wealth, seeing that every crevice in the rocky frame of these great mountains teems with valuable minerals. I have already mentioned the "smelters" of Denver, and the traveller will find a visit to them extremely interesting, not only as tending to illustrate the character and value of the mining resources above referred to, but also from a scientific point of view. Through the courtesy of Messrs. Grant Brothers I was permitted to go over their works. These are very large, covering many acres of ground, and some idea of the extent of the operations carried on may be formed, when I state that the value of the gold, silver and lead treated in 1887, amounted to nearly $6,500,000. The nature of the operations is at once understood on seeing the enormous mass of slag which has been cast aside from the reducing furnaces, and fills up an extensive hollow on the southern side of the buildings.

The ores are pulverized before roasting, but no attempt is made to save the sulphur and other volatile substances driven off by this process. There are twenty-nine roasting ovens and the requisite proportion of smelting furnaces. I was informed by the manager that careful assays of the slag thrown aside showed that not more than a dollar's worth of metal to the ton remained in it, a quantity which would not pay to extract. All the ores are bought outright, according to a settled scale of prices, reckoned by dry assay, $20 per cent. being taken off the price as the fee for treating. The assays are carried on by assayers and chemists, who have but little leisure. Each lot, as sent in, is subjected to a distinct assay, the sample to be assayed being obtained by an exhaustive process of dilution, until it is considered to represent exactly the quality of the whole parcel. This particularity is required not only because the price to be paid per ton depends upon the result of the assay, but also because the assay itself is independently required, in order to ascertain the nature and proportions of the fluxes which are to be added, to make a compound which will fuse thoroughly—even to the dissolution of the refractory zinc and antimony,—and so that, as nearly as possible, every particle of gold and silver may be extracted. The metals are run into ingots, which are sent away for refining, but I understood that it is in contemplation by the Messrs. Grant soon to start refining works of their own.

Large refining works have lately been established at one of the great smelters at South Pueblo, which have a capacity of two thousand five hundred tons a month, and machinery has also been erected for manufacturing sheet lead and lead piping, of which very large quantities are consumed in San Francisco, Chicago, Denver, and the other cities and towns within reasonable distance from the works. In order further to illustrate the extent of the mineral wealth produced in the districts referred to, I quote the following statistical amounts of the yield for the twenty years extending back from 1888:—As regards gold and silver this had steadily increased from $200,000, in 1869, to upwards of $35,000,000, in 1887, the average of the twenty years from 1869 to 1888, being estimated at $7,700,000 per annum. About half of this was gold, for it is only since 1870 that silver has been extensively mined. But besides gold and silver, the mines have produced considerable quantities of tellurium, copper, lead, iron and coal, which have added very largely to the total value of the mineral productions of this wonderful district.

The agricultural and pastoral products of Colorado have already become very large. The number of cattle in the state, in 1888, is computed to exceed 1,500,000 head; and the annual export to other parts of the states, reaches 100,000, at an average price of $20 a head. The returns from hides and tallow have also been large,

and their value, added to that of the local consumption, is computed to reach annually some $600,000, giving an aggregate annual return from this branch of industry alone of $3,500,000. The capital value of the cattle, the larger proportion of which belong to residents in Denver, is estimated to exceed $14,000,000. The number of sheep, too, is large. In 1887 they amounted to about 1,500,000, and fresh capital is constantly being invested in this class of stock, the pastures of the Rocky Mountains being found admirably suited to them. The total value of the sheep runs in 1888 was estimated at $5,000,000, and the annual income at $1,300,000, which is very much greater in proportion to capital value than that which is obtained from the same industry in any part of Australasia. The general agricultural products of the state, also reach a very considerable amount. In 1883, the date of the last available statistical returns, the quantities of the principal crops were given as follows:—Hay, 266,000 tons; wheat, 1,750,840 bushels; oats, 1,186,534 bushels; maize, 598,975 bushels; barley, 265,180 bushels; rye, 7,830 bushels; and potatoes, 851,000 bushels: the value of which, added to fruit and ordinary garden produce taken to market, amounted to upwards of $9,000,000. Much of this agricultural prosperity is owing to extensive and scientific irrigation, and I was much interested, during my journey through Utah, Colo-

rado and Kansas especially, in observing the systematic use made by the farming population, of appliances for raising and distributing water for this purpose, from every river and water-course which came into sight from the train; and I could not help observing, when, somewhat later, I travelled through the settled districts between Melbourne and Sydney, the utter neglect, on the part of the farmers and stockowners there, of this mode of fertilizing the soil.

I have compiled the foregoing accounts, as examples of the mining, agricultural and pastoral resources of Colorado; and it is scarcely to be wondered at that, although less than forty years ago, its whole area was held in exclusive possession by a number of savage tribes, living by the chase and by plunder, waging fierce wars amongst themselves, and dangerous to the imigrant parties which passed through it, it should, under the impulse of American enterprize, have now become occupied by fine cities and towns, and by the camps, farms and ranches of a great and increasing mining, agricultural and pastoral population.

CHAPTER XII.

CHICAGO—THE MISSISSIPPI—REMARKABLE SCENERY—THE BURIAL OF DU BOUQUE—ST. ANTHONY'S FALLS—INDIAN LEGEND—PROGRESS OF MINNESOTA—THE CITY OF CHICAGO—ITS RAPID RISE AND PROGRESS—THE GREAT FIRE—CONCLUSION.

I LEFT Denver on the 19th June by the Union Pacific line to Atchison, and from thence on by the Burlington route to Chicago, where I arrived at nine in the morning of the 21st. The convention, in connection with the late Presidential election, was being held there, and this event had brought nearly 100,000 visitors to the city, which made it extremely difficult to obtain accommodation, even the drawing rooms of the hotels having been converted into sleeping apartments. After much trouble I obtained a room at the Revere House, a very unpleasant place, due, no doubt, in some degree to the large influx of visitors. As the weather still continued to be intensely hot, the discomfort thus occasioned was so much the greater. I have already mentioned that Chicago was founded in 1831, and that up to 1848 its population did not exceed 5000. Its present population exceeds 1,000,000, and the

increasing development of the enormous resources of the States of Indiana, Illinois, Iowa, Wisconsin and Minnesota, and especially of the latter, leads to the conclusion that its population will, within a few years, rise to, if not exceed that of New York.

The marvellous progress of the country to the west of the Mississippi, after the year 1848, is one of the most interesting events in modern history, and, as I have already observed, can only be well appreciated, by comparing its present condition with that which obtained prior to that year. As I have already mentioned, St. Louis was then the principal city of the West, its position near the confluence of the Missouri with the Mississippi, and with relation to the great western Praries, concurring to make it the most convenient centre for the only trade then carried on, namely that with the Indian population. A similar trade was opened out with the Indian tribes of Iowa, Wisconsin and Minnesota by the early mercantile settlers of Chicago, but the rapid development of the agricultural and pastoral resources of those States and of those of Indiana and Illinois, soon changed the direction of enterprize, and has produced commercial results of extraordinary magnitude. In order that this wonderful change may be understood the better, I propose to recall the condition of Minnesota,—as the most important of the above States,—prior to the year 1848.

This state contains 83,500 square miles or 53,400,000 acres of territory, consisting chiefly of beautiful prairies, interspersed with valuable and extensive forests. The Mississippi river takes its rise in Leech and other lakes, situated about 150 miles from the northern boundary of the State, and after passing St. Croix, becomes its eastern boundary, dividing it from Wisconsin. Minneapolis, its largest city though not the capital, is situated at the confluence of the Minnesota, (from which the State now takes its name) with the Mississippi. It was founded in 1849, and at present contains a population of 70,000. The Minnesota was discovered in 1863 by a Frenchman named Le Sueur, who named it the St. Pierre, after a celebrated captain who then commanded at a French military and trading post on the borders of Lake Pepin, an expansion of the Mississppi, and it retained this name until 1852, when the ancient Indian one was restored to it by act of the State Legislature.

The Mississippi is navigable as far as St. Paul's, the capital of the state, where the navigation is interrupted by St. Anthony's falls. The Mississippi and the Minnesota, which is its chief tributary within the state, were then the only lines of communication with its interior. The sources of the main river may still be reached by steamer from St. Louis to St. Paul's, and from thence by boat to the lakes; but where time is an object, they may be more conveniently reached by rail

from St. Louis or Chicago to Brainerd, and from thence by boat or otherwise.

The scenery on the upper parts of the Mississippi is described as being singularly attractive. The river is hemmed in, on both sides, by an almost uninterrupted succession of steep hills of ever changing and curious form, intersected by glens full of luxuriant forest. Indeed, the magnificence of this scenery is said to be such that a traveller even ordinarily indifferent to scenic attractions feels himself chained to the deck of the steamer, whatever may be the season of the year or the state of the weather. Each moment unfolds new scenes, strange pictures, undreamt-of panoramas not easily described, and differing from anything known in any other country. It was on one of the remarkable hills which form so conspicuous a feature in these landscapes, that Monsieur Du Bouque,—whose name has been given to one of the towns on the banks of the Mississippi, in commemoration of his work as a pioneer of western discovery,—directed his body to lie after his death. In compliance with his wish this was done, the body, wrapped merely in a winding sheet, being placed on a flat rock on the summit of the hill which he had selected, and which commands one of the finest views in the world. It is said, that a few years ago, his skeleton was still to be seen in its singular resting place.

St. Anthony's Falls are described as being very beautiful. The first white man who ever visited them was Father Hennepin, a friar of the order of the Ricollets, who is reported to have discovered them on his return from an excursion to Mille Lacs in 1680. It appears that he also visited the Falls of Niagara, of which he made the first known drawing, which is of very great interest as giving some idea of the condition of the Falls two hundred years ago. He named the Mississippi Falls after St. Anthony of Padua. Jonathan Carver visited them in 1766, and made a drawing which was engraved and published in London.

Hennepin says that, when he was crossing the river below the falls (near an island which still bears his name) in company with a party of Dacota buffalo hunters, he saw one of these savages standing on an oak at the opposite side of the grand cascade and weeping bitterly. He wore a very handsome beaver-skin robe lined with white and covered with embroidery, wrought in porcupine quills. The Indian threw his beautiful robe into the river, hoping by such a sacrifice to render the spirit of the waters propitious to his tribe. "O Thou," said he, "who art a spirit, grant me the favour that those of my nation may always cross this cataract without incurring any accident; that our hunters may kill buffalos in abundance, may vanquish our enemies, and bring prisoners to Thee, whom we will

sacrifice in thy presence. The Foxes have slain our kinsmen; graciously enable us to revenge ourselves upon them." This sort of sacrifice is said to have been of frequent occurrence, as the savages used often to cross the Mississippi at this height.

The Abbé Domenech tells us, that the little island above alluded to was called the "Isle of the Spirit," on account of a legend which relates that, sometimes in the morning, the ghost of an Indian woman may be seen above the great fall, in a skiff made of bark, carrying an infant in her arms, whom she presses to her breast. Meanwhile she sings and steers the skiff, which is soon swallowed up in the foaming waters. The following is a translation by the Abbé, of the principal passages of this singular legend:—

"Aupetusa-Paouinu opened her eyes to the dawn of life long before the canoes of the white men were rowed over the waters of the Mississippi, long before their gaze had beheld the flowers that adorn those vast and beautiful plains. She passed into girlhood, and from the morning's light until the shades of even, she partook of the fatigues and dangers of the other virgins of her tribe. She would swim without fear among rapid currents, and learned to guide her frail canoe, in which she glided lightly over the waves of the torrents, or over the rippling lakes. She acquired the knowledge of tanning the deer skin, and also dyed the bison's hide

in various colours, and would then cover it with fantastic designs. She always prepared the tent for the repast, and was accustomed to cut her food with an ivory knife. She cleaved wood with a stone axe, and was in every respect inured to the rudest savage life.

"In a vessel made from the bark of the birch tree, she boiled her food with hot stones. She caught fish with bone hooks. With the quills of the porcupine she embroidered gifts for the beings she loved. In the blooming meadows she bounded about with her young companions, and often did she carry off the prize in the race. She was taught to fear the Ojibbeway, and would dance joyfully round his scalp; frequently, either by agility or cunning, she escaped from the lance or arrow of that terrible enemy.

"In this manner, with a heart sometimes gay, sometimes sad, she went through the trials of her young existence. At length the day arrived when, uniting herself to the warrior of her choice, the nuptial joys and those of maternity caused her heart to swell with delight. But, alas! great happiness is the prelude to great suffering; the greater the joy, the more deep and intense the grief, and deceived love can change into hatred. He whose smiles she cherished more than life itself, he for whom her heart overflowed with affection, forgot her for an impure love which he found away from her.

"Aupetusa-Paouinu saw that ungrateful, that false one, forsake and despise her. What were then her thoughts? No one knew. No Indian ever saw tears in her eyes, her lips never betrayed her feelings, her bosom never revealed a sigh; long did she conceal her anguish and her sorrow. One day, her tribe pitched its tents on those green and lovely banks close to the spot where the foaming Mississippi precipitates itself with a crashing noise. Aupetusa-Paouinu was there, painting her face in bright colours; she had her babe in her arms.

"Why does she plait her flowing locks, as in the day of her nuptials? Why does she thus put plumes on the head of her child, as for a day of festivity? See! see! she enters her canoe, and, placing her infant at the prow, she leaves the shore in profound silence. Her hand is steady as she plies the flexible oar; no tear glistens in her eye; the skiff darts through the waters as if flying towards the falls, as flying towards the abyss. Aupetusa-Paouinu's friends call to her in vain; calmly she pursues her terrible route, without even turning her head to take a last glance. All tremble with horror; she alone betrays neither fear or emotion. She re-animates the courage of her timid infant with the most endearing and tender words, with her sweetest voice. The spouse, the father, is there; despair in his heart on beholding his child, so full of life, and yet so near death.

"Still the bark glides on faster and faster, drifted by the waves and urged forward by the oars; it would not go so swiftly were death behind it and life before. But they approach the gulf; henceforth no human power can save the two victims. She begins her death chant; her clear vibrating notes are heard above the roaring torrents; her fine sonorous voice is wafted by the breeze.

"Hearken no longer, young warriors; the chants that caused you to weep have died away in the rolling waters. The mother and child are no more; they now lie in an obscure cavern, unknown to all, sleeping the sleep of death.

"Fragments of the skiff alone were found; but when the sombre night wraps its thick veil round the trees of the island, when the wind howls and blows fiercely over the mighty river, a sad yet sweet voice is heard in the air, murmuring a song. It is said to be Aupetusa-Paouinu repeating her death chant."

This legend is said so be very ancient, and the Dacotas seldom fail to relate it to travellers who in their company visit St. Anthony Falls. I might fill a volume with descriptions of the scenery of Minnesota, and with the legends of the Dacota, the Sioux and the Chippewa, which were the principal Indian tribes that roamed over its prairies and forests, before they fell into the possession of the white man; but, however

interesting these might prove, such a course would not fulfil the object of this work.

As already mentioned, the area of the state is 83,531 square miles, the greater portion of which consists of undulating plains diversified with forest. The general elevation above sea level is about 1000 feet, and, although the winters are severe—the thermometer frequently falling to 10deg. and 20deg. below zero,—this great cold is not injurious, owing to the absence of winds at that season of the year. In summer the heat is considerable, the thermometer ranging from 80deg. to 90deg.; but this heat is not found to be oppressive in consequence of the dryness of the climate, the average annual rainfall not exceeding 25.5 inches. The climate is described as being extremely healthy, and the death-rate in the cities as being considerably below that of the great majority of the cities of the eastern states. The superficial soil of nearly the entire state is a rich brown or black calcareous loam, varying from three to five feet in depth, overlying boulders, clays and gravels of glacial origin, and is rich, not only in organic matter, but also in the various salts which stimulate the growth of plants. It is very durable and yields a long succession of crops, without the application of artificial means of fertilization. In the twenty years from 1850 to 1870 the area of land under cultivation rose from 1900 acres to 1,863,316, and since that date the area

has more than doubled. The principal agricultural products are wheat, maize, oats, barley and rye; whilst honey, wax, maple-sugar, fruit and a great variety of other articles are also produced. There are immense numbers of cattle and pigs, but sheep do not appear to do well, owing doubtless to the severity of the winters. The forests contained enormous quantities of pine and hardwood, the former of which, however, is rapidly disappearing under the attack of the lumberer. In 1880 an estimate was made of their then condition, and the quantity of pine still standing was computed at 6,100,000,000 of feet, whilst there were 3,850,000 acres of hardwood forest, capable of yielding 57,000,000 cords of wood. The consumption of the pine forest was, however, proceeding at an enormous rate, the fall in 1880 amounting to 541,000,000 of feet. The vast amount of water power afforded by the fine rivers with which the state abounds, is utilized for a variety of manufactures, independently of its application to saw-milling purposes. The country is intersected in various directions by railways, which bring every part of it into communication with Chicago and Milwaukee, whilst thousands of miles of ordinary road have also been constucted. In 1880 the agricultural population alone was upwards of 850,000, and has, no doubt, increased considerably since that date, whilst that of the various towns is also very large. Now, when we contrast this

condition of things with that which existed in Minnesota prior to 1848, and reflect that a similar change has taken place in the area comprised within the four other states to which I have alluded, though in lesser degree, we cannot be surprised at the rapid increase of Chicago in extent, population and commerce. As already stated, it was founded in 1831, and between that date and 1850 its progress was slow, its population having risen to 6077 only. From that time it rose rapidly, being 173,000 in 1860, 440,000 in 1870, 781,000 in 1880, and certainly little under, if it be not over 1,000,000 at the present time. When originally built, the city level was only 7 feet above that of Lake Michigan, but in 1855, the level was fixed at 14 feet above the lake, and the whole of the buildings were raised to the new level by means of screw jacks, the streets being filled in during the progress of the work. Still owing to its low position relatively to the lake level, and the height of the buildings, the heat is very great, and a sensation of intense relief is felt on emerging from the crowded traffic of the principal streets, into the beautiful open space of Michigan Avenue,—probably one of the handsomest streets in the world.

Some idea of the progress of the country in direct communication with Chicago, will be obtained from a glance at the trade and commerce of the city itself. Its chief trade is in grain and flour, live stock, produce of

cattle and pigs, dairy produce, wool and hides, high wines and alcohol, seeds and timber, and the value of these, in 1885, was not less than $373,000,000. It has a direct shipping trade with Europe, as well as with Canada, and with every part of the states adjacent to the great lakes. The number of vessels entered in 1885 was 16,380 of 5,217,000 tons; and cleared, 16,572 of 5,307,000 tons. It is connected with 21 trunk lines of railway, comprising more than one third of the whole mileage of North America, and upwards of 1000 trains a day enter and leave it. Its exports, which in 1869 only amounted to 7213 tons, had increased to 219,377 tons in 1875, and the latter figure was more than doubled in 1885. Some idea of the traffic within the city, arising from the extent of the import and export trade, may be formed when I state that the volume of produce and goods of all kinds pouring through the city in 1885, was little under 11,000,000 of tons, or at the rate of nearly 22 tons for every minute in the year, and amounting to 1,100,000 ordinary railway car loads.

We are justly struck with astonishment, when we consider the rapidity with which such a condition of things as I have described has been brought about; but it becomes even more marvellous when we reflect that little more than seventeen years ago, one of the most appalling and disastrous events occurred in Chicago which has ever befallen a great city. On the 8th and

9th of October in that year, a fire, unparalleled in the history of the world, broke out at ten o'clock in the evening in a cow-shed at the back of No. 127 De Koben Street. A strong southwest gale was blowing at the time, and the efforts of the policeman, by whom it was discovered, to extinguish it proved unavailing. Valuable time was lost, therefore, before notice of the fire was given and the fire apparatus of the city could be brought into use, and by the time it reached the scene the flames had extended to such a degree as to defy all efforts to check the work of destruction. The extension of the fire was so rapid in effect, that all human means appeared to be powerless to prevent its progress; the flames spread from house to house with inconceivable rapidity, masses of it actually leaping the river, and involving in the common destruction, buildings which appeared to be entirely out of their reach. The awful gale which blew at the time filled the air with live coals, and hurled to great distances blazing boards and other masses of ignited matter. All the leading banks of the city, many handsome stone built churches, the railroad depots of several of the railway lines, the court house, the chamber of commerce, the post office, telegraph office, a number of large hotels, including the Pacific—one of the most extensive in the United States,—all the newspaper establishments, the opera house and several theatres, an immense number of

splendid warehouses, many huge elevators—in which were stored millions of bushels of grain,—scores of magnificent private residences in Wabash and Michigan Avenues, and in fact property of all kinds, were swept away. The dreadful scenes which occurred during this fearful disaster have never been equalled; and the consternation was intensified by the explosion of several enormous gas holders, which burst with the violence of a volcanic explosion, involving everything around in destruction. In the western division of the city the number of acres burned over was 216, occupied by houses of an inferior class. In the south division it extended over 460 acres: the number of buildings destroyed, including many of the finest in the city, was 3700, previously occupied by 22,000 people. In the north division the flames swept over nearly 1500 acres, destroying 13,300 buildings, occupied by 75,000 people. The total area burned over was 2124 acres or about three and a third square miles, containing seventy-three miles of streets, and 17,450 buildings, the homes of upward of 100,000 persons. All this took place within thirty hours, and involved a loss of not less than $200,000,000, or nearly £45,000,000 sterling.

Whilst the utmost heroism and fortitude were exhibited by thousands, and active charity and affection were lavishly displayed in mitigating the effects of this fearful disaster, yet gangs of armed ruffians were

seen everywhere, hunting for plunder, and inflicting, in many instances, deadly injury upon those who sought to protect the miserable remnants left to them. Heated with drink, they caused a reign of terror, which continued for some time unchecked, and added materially to the horror of the terrible event. Such, however, was the rapidity with which this dreadful disaster was repaired, that within ten years after its occurrence but little trace of it was to be seen.

Now, when we reflect upon the fact that the occupation by the white man of the vast territory between the Mississippi and the Pacific, was only commenced in 1849 by the settlement of the Mormons on the borders of the Great Desert, and that, owing to the hostility of the Indian tribes, its further occupation was postponed for many years after that event, we cannot but feel that its colonization has been the most wonderful movement which has occurred within historic times.

The rapidity of the changes that have taken place, is, indeed, almost inconceivable to those who did not witness it themselves. Between 1842 and 1848, Fremont found the native tribes who roamed over this great territory engaged in almost constant warfare. Everything was strange, wild and savage. Only forty years have elapsed since then, and already large cities have arisen, the clearing, the farm and the industrious settlement replacing the ephemeral villages of the

Indians. In lieu of oral traditions, passed from father to son by an untutored people, we have everywhere the broad sheets of the press engaged in diffusing information and in discussing the aims and the politics, the hopes and the wants of a civilized people. From year to year, the "iron horse" is extending its already wide range of work, and bringing within the grasp of the cultivator immense tracts of country previously too distant for profitable use. The progress of a single year outspeeds the work of past centuries. If, then, by the intrusion of the vigorous white race, busy marts and smiling farms are taking the place of the hut of the savage, and the millions of a populous country, with the arts and letters, the matured policy, and the ennobling influences of a free people, are replacing the few thousands of scattered savages heretofore living in an unprogressive state, even the most sensitive philanthropist may learn to look with resignation, if not with complacency, on the practical extinction of a people which had so imperfectly accomplished the higher objects of man's being. If the remnant of the Indians can, so far as wise policy and generous statesmanship may accomplish it, be admitted to share in the advantages of a progressive civilization, then we may look with satisfaction at the close of the long nighttime, during which the immense country I have so imperfectly described gave birth to no science, no

philosophy, no moral teaching,—and hail the dawn of centuries during which it is to bear a part in the accelerated progress of the human race.

APPENDIX.

The career of Kit Carson, whose name has occurred so frequently in the foregoing pages, was so peculiarly illustrative of the conditions of life in the country I have described, during the years from 1830 to 1848, that I have thought it desirable here to insert an account of it, compiled from authentic sources, which will, no doubt, interest my readers.

He was born in Madison County, Kentucky, on Christmas Eve, 1809. When a year old, his father moved west to Boone's Lick, in Missouri ; and when he was eighteen, he walked off on his own account to Santa Fé, and thenceforth wandered about among the Rockies and their east and west slopes, southward to New Mexico and northward to the Canadian border, till every peak and pass and stream and plain were known to him.

His early boyhood was spent amid the same surroundings as that of Daniel Boone, the only difference being in the superior mechanism of the firearms that even the women and children were taught to use. There was the same log cabin, half hut half fortress, loopholed and roughly fortified and girt with a glacis, from which every bush and tree and point of cover within the rifle range had been cleared. And, as he grew up, the settlement increased until it became a cluster of roughly built,

farm houses, with a stronger blockhouse in the centre, to which, at each Indian alarm, the settlers could flee for mutual safety. Round this fort was a loopholed palisade, made of trimmed trees six or eight inches in diameter, and rising ten feet from the ground, so that the place was of ample strength against any ordinary attack.

At fifteen, Kit was apprenticed to the village saddler. He was then a famous shot and an adept in all matters of wood craft. Slightly built and small in stature, he had gained a reputation for decision and quiet daring, inferior to none; and, unlike most of his class, he was no boisterous scapegrace or sower of wild oats. He was, however, a very unpromising saddler; and the awl and the leather had little charm for a king of the wilderness, longing for freedom of the woods, and looking, beyond the bench, to the hunting of the buffalo, the trapping of the beaver, and the guiding of the frail canoe down the dangerous rapids of the West.

When he was eighteen, a party of traders passed through the village on their road to Santa Fé, the capital of New Mexico, which then belonged to Spain. The journey, one of a thousand miles, promised to be adventurous, and young Carson begged to be released from his apprenticeship, in order to share its perils. The permission was obtained, and Kit set forth.

His first experience was a surgical operation. One of the men had an accident with his gun, and blew the bone of his arm to splinters. The arm became inflamed, and to save the man's life it was necessary to amputate the limb. Kit was requested to act as surgeon, and the others promised to assist; the instruments were a razor, a handsaw and a bar of iron. The lad of eighteen bound a ligature round the arm so as to check the flow of blood, and then, with the patient held firmly down by his friends, proceeded to slash through the flesh with the razor. Then with the hand-saw he cut through the bone. And then with the iron bar, heated almost to white heat, he seared and cauterised the wound. The rough operation proved successful, and by the time Santa Fé was reached the patient had recovered.

Kit did not return with his Mexican traders, but went away eighty miles northeastwards, and took up his quarters for the winter with the celebrated Kin Cade. Cade was a master trapper and humble explorer, who knew the prairies and mountains like a book, and was glad to come across so promising a pupil. With his ramrod he would draw on the hut floor rough maps of the country, showing the position of the rivers, the lakes and the hunting-grounds, and telling long yarns of his varied adventures and successes. A thorough Spanish scholar, he set to work to teach Kit the language which, in that border country, was almost indispensable for those who wished to trade. All the mysteries of hunting and trapping that had come within his ken did he reveal to him, and in many ways we may regard Kin Cade's hut as Kit's academy.

In the spring, Kit started on his return journey to Missouri, but at the ford on the Arkansas, which served as the half way mark, he met another party bound west, with whom he returned to Santa Fé as interpreter, the offer coming to him, thanks to his recently acquired knowledge of Spanish. From Santa Fé he went with another party a hundred and fifty miles south to Chihuahua and then returning, went off a hundred and fifty miles north to Taos, where years afterwards he was to settle.

Here he entered the service of Colonel Young, and became a trapper. In that capacity he spent the winter of 1827. His life when thus engaged is thus eloquently described by one of his biographers, Mr. Abbott:—"Young Carson, alone with his horse and mule, would journey from fifty to a hundred miles, examining every creek and stream. keeping a sharp look-out for signs of beaver. Having selected his location,—generally in some valley eight or ten miles in extent, with a winding stream circling through the centre, which he had reason to believe was well stocked with beaver,—he would choose a position for his camp. This would be more or less elaborate in its construction, according to the time he intended to spend there. But he would always find some sunny nook, with a southern exposure and a pleasing prospect, near the brook or some spring of sweet water,

and, if possible, with forest or rock sheltering from the north winds.

"In a few hours young Carson would construct his half-faced cabin, as the hunting camp was called. A large log generally furnished the foundation of the back part of the hut. Four stout stakes were then placed in the ground, so as to enclose a space about eight feet square. These stakes were crotched at the ends, so as to support others for the roof. The front was about five feet high, and the back not more than four. The whole slope of the roof was from the front to the back. The covering was made of bark or slabs, and sometimes of skins. The sides were covered in a similar way. The whole of the front was open. The smooth ground floor was strewed with fragrant hemlock branches, over which were spread blankets or buffalo robes. In front of the opening the camp fire could be built, or on the one side or the other, in accordance with the wind.

"Thus in a few hours young Carson would erect himself a home so cosy and cheerful in its aspect, as to be attractive to every eye. Reclining upon mattresses really luxurious in their softness, he could bask in the beams of the sun, circling low in its winter revolutions, or gaze at night upon the brilliant stars, and not unfrequently have, spread out before him, an extended prospect of as rich natural scenery as ever cheered the eye. He had no anxiety about food; his hook or his rifle supplied him abundantly with what he deemed the richest viands. He knew where were tender cuts. He knew how to cook them deliciously. And he had an appetite to relish them.

"Having thus provided himself with a habitation, he took his traps, and, either on foot or on horseback, as the character of the region or the distance to be traversed might render best, followed along the the windings of the stream till he came to a beaver-dam. He would examine the water carefully to find some shallow which the beavers must pass in crossing from shoal to deep water. Here he would plant his trap, always under water, and carefully adjust his bait. He would then

follow on to another dam, and thus proceed till six traps were set, which was the usual number taken on such an expedition.

"Early every morning he would mount his horse or mule and take the round of his traps, which generally required a journey of several miles. The captured animals were skinned on the spot, and the skins only, with the tails, which the hunters deemed a great luxury as an article of food, were taken to the camp. There the skin was stretched over a framework to dry. When dry it was folded into a square sheet, the fur turned inward and a bundle made containing from ten to twenty skins tightly pressed and corded, which was then ready for transportation."

In the spring a party of eighteen trappers fell into an Indian ambush, and the survivors retreated to Taos with the news of the disaster. To punish the Redskins, Colonel Young called together his trappers, and, forty strong, marched off to battle. With him went Carson as his right hand man.

The Indians were ready and waiting and delighted at the prospect of another trial of strength. But the Colonel caught sight of them, and posted his men before they were aware he was so near. Twenty-five of the trappers he hid in ambush, and with the remaining fifteen he advanced a little; and then, seeming to see the Indians for the first time, he halted as if irresolute. The Redskins mustered in hundreds; the trees and bushes were alive with them, as, seizing each point of cover, they came swiftly on. They glided into the ambush as the wily trappers retreated, and then five-and-twenty Indians bit the dust. From the front, from all sides, the Redskins found themselves fired upon, and, waiting only for another volley from the united white men, they were seized with a panic and fled.

After the fight the trappers returned to business, and the whole band made their way down an affluent of the Colorado, trapping as they went, until they reached the head quarters of the San Francisco. The Colonel then led off eighteen of his men to the valley of the Sacramento. As the road was to lie, for several hundred miles, through a waterless desert, a few

days before the start was devoted to hunting, and the skins of three of the deer that were killed were converted into water tanks, to be carried by the mules. For four days Young, Carson and their men passed through a sandy waste, with neither streams nor springs, and the water had to be doled out as if they were on a camel journey through the Sahara. On the fifth day a stream was reached ; and then came another four days' desert tramp down into the rich valley of the Colorado. Resting here for a while, they started again for the west, and finally reached San Joaquim, where they met with another trapping party under Peter Ogden, in the employ of the Hudson Bay Company. Joining their forces, the parties worked together down the river to the Sacramento, where Ogden's men left for the Columbia.

Close to their camp was the mission of San Rafael. In the employment of the missionaries were many Indian converts. One night some of these broke into mutiny, and after committing the usual atrocities, made off to their tribe to take to their old ways. The Missionaries sent out a party to demand that the fugitives should be handed over for trial, but the tribe took up their cause and drove back the messengers with serious loss. In fear lest the Indians should bring them on to San Rafael, the missionaries appealed to the trappers for help, and eleven volunteers, under Kit Carson, started off to compel the surrender of the criminals. The village was captured, a third of the warriors were slain, and the men who had committed the outrage were handed over and marched back to the mission.

Soon afterwards the Indians stole the trappers' horses during the night, and fled with them to the mountains. Carson went off in pursuit, following the track through the snow. For more than a hundred miles he followed them, and then he caught them encamped. They had killed and eaten six of the horses, and were resting after their meal, when the rifles of Kit and his companions each brought down its victim. The Indians fled and the horses were recovered.

On his way back to Santa Fé, Colonel Young halted on the bank of the Colorado, and here another adventure befell the

young trapper. He had been left in charge of the camp with half a dozen men, and had fortified it in the usual way, the bundles of furs being built up around it, while the horses and mules were turned out to grass. Suddenly a band of five hundred Indians were descried. They halted a short distance from the camp and sent off a strong body of warriors, who made friendly signs and were admitted within the ring. They were followed by others, and Kit discovered that each man had a weapon concealed about him. In the quietest and most ordinary tone he suddenly told the six trappers, each to mark his man, and, raising his own rifle, aimed straight at the head of the leader of the party, who was hardly six feet away from him. Very coolly and decidedly he told him that unless he left the camp immediately he and his men would be shot. The Redskins grasped the situation at a glance, and leapt off for their lives. They might easily have overpowered the trappers, but Indians will seldom attack when they feel certain that some of their prominent leaders will be killed.

In 1830, Kit was out trapping under Fitzpatrick up the streams and valleys of the Rockies. In the following January the horses were stolen by the Crow Indians, and there was another pursuit for forty miles or so, ending in the usual battle with the usual success. On this occasion the trail had been almost wiped out, owing to a herd of several buffaloes having crossed it in the night. Soon afterwards, when out with four of his companions, Kit came suddenly on four Indians, evidently on the warpath, to whom they gave chase. The Indians led them into an ambush, and they had to cut their way through and ride then for lives. Often the yelling crowd was within a few feet of their horses, but the arrows and bullets whistled harmlessly past owing to the speed of the chase. Towards the end, as the camp was reached, two of the men were wounded, but not seriously.

In October 1832, Kit joined Captain Lee as a fur trader, and with him went over the old Spanish trail, the single-file path between New Mexico and California. On the Windy River they were overtaken by the winter, and took up their

quarters in the camp of a Mr. Robidoux, in whose employ was a gigantic Indian of much strength and dexterity. One night this Indian, in whom much confidence was placed, walked off with six of the best horses and five loads of furs. Kit was asked to go in pursuit, and with an Indian companion he started.

For a hundred miles and more they raced together down the valley of the Green River, until the Indian's horse gave out, and then Kit went on alone. Thirty miles further he went, frequently leaping off his horse to rest him and running by his side. There was no time to stop, as the runaway, with his choice of mounts, could keep on without a pause. Suddenly, as he rounded a small hill in the prairie, Kit caught sight of the thief, riding along leisurely not two hundred yards off him. The Indian saw him at the same moment, and, jumping to the ground, rushed for the shelter of a few trees that grew close by. Carson was riding at full speed, and saw that if his foe could but reach the cover he would get the first shot. Instantly the rifle went up, and the Redskin fell with the bullet through his heart, while he was in the very act of lifting his cocked rifle at his pursuer.

Kit collected the six horses and quietly returned to camp, where his reception may be imagined.

Not long afterwards Kit was out trapping on the Laramie. He and his two companions had been toiling for hours through a dreary ravine; and when the camp was pitched, just before sunset, he went off into the woods in search of something for supper. About a mile from the camp he came upon fresh tracks of elk, and, following the trail soon discovered a herd grazing on the hill side. Setting down for a stalk, he managed to get round the trees behind them, and, creeping into range, picked out the fattest and dropped him at his first shot. Kit was congratulating himself on his good fortune, and was rising from his place of concealment, when a terrific roar made him turn sharply round, and but a few yards away there were a couple of huge grizzly bears coming down upon him at full speed.

There was no time for him to load, and a grizzly is so tough a customer that a single shot is seldom enough. There was nothing left for it but to run, and the speed of a grizzly is terrific for short distances. Dropping his rifle he made a desperate rush for a tree close by, and, springing to the lowest branch, just caught it and dragged himself up into safety as the bears, growling and gnashing their teeth below, struck at him with their claws.

A grizzly is as good a climber as a man, and after a moment's hesitation one of them began to swarm up the trunk. But in the meanwhile Kit had hacked off a stout cudgel with his knife, and as the bear came within range, showing his white teeth in anger and certainty of his prey, down came such a whack on his nose as drove him nearly mad with pain: for a bear's nose is his tenderest part, and, indeed, the only part in which a blow can hurt him. Drawing back for a moment to consider, he again made for Carson, who again and again struck him down with the cudgel, until he dropped howling to the ground.

The other grizzly, doubtless feeling some contempt for his friend at his failure, then scrambled up the tree and artfully endeavoured to dodge the blows with which he was assailed. His efforts were in vain; the thuds rained down so fiercely on his snout that in drawing back he slipped, and with a tremendous bang he was knocked flying off the bough. Howling with pain and roaring with rage, the bears filled the forest with their noise for hours. Now and then they would bury their snouts in the ground to ease their pain, and then they would return to the tree start to climb it, and give up the attempt in despair as they caught sight of the cudgel above. At last they came under the branch, and, gnashing their teeth at Kit, gave him a good-bye roar, and retired slowly and sadly into the woods.

The trapper waited for some time in the tree to make sure they had gone, and at dawn he descended, recovered his rifle, and, finding that the deer he had killed had been eaten by the wolves, went back to camp where he had to content himself with a breakfast of beaver meat.

In a fortnight Carson and his companions joined company with Fitzpatrick's men, and with them journeyed off to the Trapper's Fair, which in that year took place on the Green River. Here the furs were disposed of, and stores and ammunition laid in for the coming season. A strange scene was one of these fairs in the wilderness! Traders and trappers of all nationalities here met, and for a month or more joined in a barbarous round of business and amusement. The site was a green meadow on the banks of a mountain stream, which was soon covered with the huge camp of two or three hundred men with their five or six hundred horses and mules, and as each party came in to the rendezvous they were cheered by the earlier arrivals.

On one of the gorgeous days of the Indian summer the encampment presented a spectacle of beauty, which even to these rude men was enchanting. There was the distant encircling outline of the Rocky Mountains, many of the snow-capped peaks piercing the clouds. Scattered through the groves, which were free from underbush, and whose surface was carpeted with the tufted grass, were seen the huts of the mountaineers in every variety of the picturesque and even of the grotesque. Some were formed of the well-tanned robes of the buffalo; some of boughs, twigs and bark; some of massive logs. Before all these huts fires were burning at all times of the day, and food was being cooked and devoured by these ever hungry men. Haunches of venison, prairie chickens, and trout from the stream, were emitting their savoury odours as they were turned on their spits before the glowing embers. The cattle, not even tethered, were grazing over the fertile plains.

When the fair broke up Carson and fifty others went off to the upper branches of the Missouri, and, after a two hundred-mile tramp, encamped on the banks of the Big Snake, where they were attacked by the Blackfeet.

"With me, Carson and truth mean the same thing. He is always the same—gallant and disinterested. He is kind-hearted, and averse to all troublesome and turbulent scenes, and has never engaged in any mere personal broils or encounters, except

on one single occasion, which he sometimes modestly describes to his friends."

So wrote General Fremont, referring to a hand-to-hand encounter which Kit had with a certain bully named Shunan. It took place on horseback, and Kit luckily shattered his enemy's fore-arm with a pistol shot, as the rifle trigger pulled, and thus, instead of meeting his death, escaped with his face burnt with the powder and the top of his head grazed with the bullet,—for the shot was fired not a yard away from him.

Previous to this, however, Kit had been through his battle with the Blackfeet. One night, when on the Black Snake, eighteen of the horses were stolen; and with eleven of his companions he went off in pursuit through the snow. He came upon the Indians after a fifty-mile ride; a parley ensued, and Kit and his men walked into the camp and sat round the fire and smoked the pipe of peace with the chiefs, who thus agreed to use no treachery. Carson demanded the horses, and promised, if they were given up, that he would return quietly and do no damage. Only five of the horses were offered, and these were the poorest of the lot, and the negotiations were broken off. The trappers retired from the camp, the Redskins rushed to their guns, and after a few minutes' interval the fight in the forest began.

At first the Indians were driven back; but Carson, catching sight of one of their men taking deliberate aim at Markhead, risked his own safety to save his friend. He shot the Indian dead, but was himself shot in the shoulder by another savage, who had been watching for him for some time. With Kit's fall the chance of the trappers went down to zero; and though they kept the foe at bay till nightfall, they had to clear off in the dark and carry their wounded with them. Soon, however, they returned, reinforced, and found that the Blackfeet had disappeared. Carson's wound did not take a long time to heal, and then, after the fight with Shunan, already alluded to, he joined in a trapping expedition to Fort Hall. Great were the perils of the journey; so pressed at times were the party for food that they only saved themselves from starving by bleeding

their mules and drinking the warm blood, it being impossible for them to kill them with any hope of escaping from the wilderness.

They reached Fort Hall, and a few months afterwards the Blackfeet began their old tricks, and, in a night foray, rode off with all the horses without the loss of a single man, killed or wounded. After a season on the Yellowstone, Carson returned to the upper waters of the Missouri to lead the expedition which the trappers had organised against the thieves. The Blackfeet were then a great nation, numbering some thirty thousand in all; so that the undertaking was not a light one. At the head of a hundred picked backwoodsmen Kit marched off to their chief village. After reconnoitring the position with five companions, he divided his party, taking forty-three to do the fighting, and leaving the rest behind as a camp guard and reserve, under Fontenelle.

The arms of the Blackfeet were mainly bows and arrows, and there were very few who had guns, so that the odds were not so great as might at first appear. The battle raged fiercely for hours in the woods, and the trappers had nearly exhausted their ammunition, when the Indians, fancying their chance had come, waited till most of the rifles had spoken, and, with one united charged, rushed on their enemies. The trappers were too quick for them, and the deadly rifles cracked out, each claiming its victim; but the Blackfeet, unchecked, came on to conquer, hand-to-hand. Suddenly, to their consternation. the revolvers, until then unknown to them, gave forth their fatal message, and, broken and disheartened, the Indians staggered back.

And then Fontenelle brought up the reserve, and in a long line the hundred dismounted trappers came cheering through the woods, Indian fashion—from tree to tree, from rock to rock, from cover to cover; every moment closing up with their desperate foes. Never was there a more determined battle in the bush. Often a trapper would be on one side of a rock and an Indian on the other, each watching for the other's life, neither leaving the shelter but to die. For an hour or more the

long series of a man-to-man fights went on; as one Indian was disposed of another would spring into his place; and from tree to rock and rock to tree, with the path bespattered with blood, the victorious backwoodsmen slowly fought their way. At last there came a piece of open ground, and with a cheer the white men charged straight on to the remnant that was left, and with a wild yell of defiance the Blackfeet scattered and fled. Three of the trappers were killed and many were wounded; but, of the Indians, the corpses were lying about in scores, so tough had been the struggle and so sudden the final collapse.

Even after this desperate affair the Blackfeet could bring five thousand warriors into the field, and other battles had to be fought before their strength was broken. All, however, were of the same class, all with the same incidents and the same ending. The bows and arrows stood no chance against the deadly rifle and revolver, in the hands of men who never threw away a shot or went a hair's breadth from their mark. Terrible as Carson made himself to the Blackfeet, he was the staunch friend of the Crows and Flatheads, and, indeed, with most of the Indian nations, all of whose languages he knew.

With the Blackfeet war his career as a trapper closed. Silk hats came into fashion, beaverskin went out; and the six hundred men then employed in beaver capture among the streams of the Rockies found their occupation almost gone. Kit was shrewd enough to see that trapping was a thing of the past, and, on the huntership of Fort Bent being offered to him, he gladly accepted it.

Here he stayed from 1834 to 1842, his duties being to provide meat for fifty men by the spoils of his gun. Day by day, during those eight years was he out in the woods, and it is said that he never failed in the supply or had a cross word with those that employed him. A delightful duty it would seem to be! Eight long years of constant necessary sport amongst elk and buffalo, deer and antelope, and smaller game, roaming over mountain and prairie, from sunrise to sunset, welcome everywhere alike in the hut of the white man and the wigwam of the Arapahoe, the Cheyenne, the Kioway and the Comanche!

During this period it was that he became so well-known and respected throughout the west, for having brought about the peace between the Sioux and the Comanches, and it was then that he won the heart of his Indian wife.

And now, after sixteen years in the wild woods, Kit Carson resolved to visit his home and take with his little daughter to place her at school at St. Louis. The scenes of his boyhood, had, however, undergone a considerable change. The old log cabin where his father and mother had dwelt, was deserted, and its delightful walls were crumbling with decay. His people were all scattered over the face of the earth, and he was a stranger in a strange land. Ten days at St. Louis proved enough for him; and he was on his way to his hut in the west when, on the steamboat on the Missouri, he met Fremont, then starting to explore the Rockies.

Finding that he was in want of a guide, Kit volunteered for the post, and was accepted. The expedition left the mouth of the Kansas on June 10th, 1842. Its history and adventures are sufficiently noticed in the foregoing pages. It was successful in its main object, and in September, returned in safety to Fort Laramie. In February, 1843, Carson married a Mexican lady, and two months afterwards he went off as a hunter with a waggon train from Fort Bent. On the Santa Fè trail he met with a band of Mexicans, who, fearing an attack from the Texan rangers, offered him three hundred dollars to carry a letter to Santa Fé asking the Governor to send them an escort. To do this meant a weary journey of four hundred miles, through a wilderness swarming with hostile Indians.

Kit accepted the commission, and, returning to Fort Bent, departed thence alone. With much care and circumspection he managed to get through the Indians unperceived, and reached Taos, whence the despatches were sent on, and then the Governor in return requested him to take back despatches to the Mexican caravan. With a boy as companion he began the journey. Soon they found four Indians across the road ready to intercept them. One of the Indians came forward as a herald and shook hands in sign of friendship, but the instant the hands were

unclasped he snatched at Kit's rifle and tried to wrench it away from him, so as to shoot him down. There was a short, sharp, struggle, and then Carson with his clenched fist gave his treacherous enemy such a blow between the eyes, as knocked him on to the grass with the blood streaming from his nose. The Indian was up and away in a moment, and his friends came on to the attack. Warning them off, Kit told them in their own tongue that two would certainly be shot with the rifles, and that his revolver would answer for the other two; and after hesitating for a moment the Redskins thought discretion the better part of valour, and sulkily retreated. A few days before Kit again reached Fort Bent, Fremont had been passed on his second expedition. Anxious to see his old comrades, Kit started in pursuit, caught them up at the seventeenth mile, and was prevailed upon to again give his services as guide.

After much hard work the expedition gradually reduced, and, consisting entirely of volunteers, reached Fort Dallas, and passing through Oregon went over the mountains to California.

An account of this is given in the fifth chapter of the foregoing work, but the following incident was not mentioned: — "We were forced off the ridges," says Fremont, "on the 23rd February, by the quantity of snow among the timber, and obliged to take to the mountain sides, where occasionally rocks and a southern exposure afforded us a chance to scramble along. But these were steep, and slippery with snow and ice, and the tough evergreens of the mountains impeded our way, tore our skins, and exhausted our patience. Some of us had the misfortune to wear moccasins with soles of buffalo hide, so slippery that we could not keep our feet, and generally we crawled along the snow beds. Axes and mauls were necessary to make a road through the snow. Going ahead with Carson to reconnoitre the road, we reached this afternoon the river which made the outlet of the lake. Carson sprang over clear across a place where the stream was compressed among the rocks. But the sole of my moccasin glanced from the icy rock and precipitated me into the river. It was some seconds before I could recover myself in the current, and Carson, thinking me

hurt, jumped in after me, and we both had an icy bath. We tried to search awhile for my gun, which had been lost in the fall, but the cold drove us out. Making a large fire on the bank, after we had partially dried ourselves, we went back to meet the camp. We afterwards found that the gun had been slung along the ice which formed the shores of the creek."

On the return of the expedition to St. Louis, Fremont went on to Washington, Kit went home to Taos, and there he stayed until he received a despatch asking him to join the explorer on his third expedition. He was soon at his post again, and led the way through the desert. With three men he was sent on in front to mark out the trail. For sixty miles they went without finding a drop of water or a blade of grass, and then they reached the oasis, where they lit the fire which was the agreed upon signal for Fremont to advance. Fremont saw the smoke across the plain, and brought up the main body of the expedition, which then kept on until at last it arrived at Monterey on the Pacific coast.

Here they were ordered by the Mexicans to leave the country. They formed a camp to defy them ; but, finding they could not force their way through Castro's followers, they turned northwards to the mouth of the Columbia, and on the road met and defeated a band of hostile Indians a thousand strong. The war with Mexico then broke out, and Fremont's exploring expedition became Fremont's army corps, with Carson as lieutenant. Sonoma was taken, and cannon and small arms were secured for armament, and then the march was resumed on Monterey, which fell to Sloat before Fremont arrived. Thence Fremont and his men took ship for San Diego, and thence they marched to Los Angeles, whence Kit and fifteen men started on a four thousand mile ride with despatches. After many adventures, Kit fell in with General Kearney on his road to California. Joining him, he shared in the battle near San Diego, and with him was surrounded. It became necessary to communicate with the garrison of that town, and Carson volunteered to creep through the Mexican lines and carry the message. Beale, then a naval lieutenant, offered to accompany him.

When night fell they started together on their hands and feet, feeling for the tall grass, the hollows in the ground, the shady thickets, and everything that could hide them from the triple row of sentinels that begirt the Americans. Foot by foot they crept along in silence, and to make their progress more noiseless, they slipped off their shoes and stuck them in their belts. They passed the first line, then the second, and were just thinking they were clear, when a sentinal rode up to within a yard of where they were lying hid in the long grass. With flint and steel he began to strike a light, and Kit could hear his comrade's heart beat as the sparks flew out. The Mexican dismounted. The suspense of the Americans was terrible. Click, click! went the flint and steel; and then came the light, but the sentinel's eyes, intent on his pipe, were too much occupied to see them. At last the tobacco caught, and with a grunt of relief, the Mexican mounted and rode off smoking. For two miles did the messengers creep through the brushwood, and then by a roundabout route, Carson led the way over rocks and hills. They had lost their shoes, and all next day they struggled on with bare feet over the slippery shale and through the prickly pear bushes. Another night closed in, and it was not till early morning that they reached San Diego, and brought Stockton news of Kearney's peril. Instantly the troops were called out, and marched to the rescue, and the Mexicans retreated, baffled of their prey.

In March, 1847, Kit was sent off with despatches to Washington. He took three months on the road, triumphantly outwitting the ever hostile Indians. And several times he went backwards and forwards across the continent with despatches for the seat of war. When the war was over he settled down at Taos, where he had selected and stocked a ranche.

Once, when travelling with a caravan from St. Louis to his farm, he found himself surrounded by Cheyennes. Throwing up an entrechment, he sent out an interpreter inviting the Indians to a palaver. They agreed, and he entered their camp and talked to them, through his interpreter, of his desire to be friendly. The Cheyennes began to chat amongst themselves,

Kit understanding every word. He heard the whole of the plot to massacre him and his men, and plunder his own and his neighbour's horses. Suddenly springing to his feet, he told the Indians of their treachery, revealed his name,—till then unknown to them,—and ordered them to disperse ; and so great was the terror he inspired, that the astonished Cheyennes beat a hurried retreat.

He was never molested again, and so feared and respected had he made himself by the Indians, that in 1853 he was appointed United States Indian Agent for New Mexico. In this responsible post he did his utmost to help and direct aright the sons of the wilderness, with whom he had lived so long. Only once did he meet them on the war-path and the result was, as it ever had been, the Navajos were effectually overpowered. When the War of Secession broke out, Kit became lieutenant colonel of volunteers, and did welcome service ; and at the close of the struggle he obtained the rank of brigadier-general. It is, however, solely with him as a backwoodsman that we have here to deal, and we need not dwell on his marchings and counter-marchings as a soldier.

He died at Fort Lyon, in Colorado, on the 23rd of May, 1868, leaving behind him a spotless fame. He was one of nature's gentlemen, a true man in all that constitutes manhood ; pure, honorable, truthful, sincere and ever ready to defend the weak against the strong, regardless of reward other than the approval of his own conscience.

I may add that during my journey in the train from Denver to Chicago, I had the pleasure of making acquaintance with General Fremont, with whom I had an interesting conversation on the subject of his explorations. I was not then aware, that the late Mr. Carl Weber had been one of his trusted friends and companions, or I should have mentioned his sad fate to the General.

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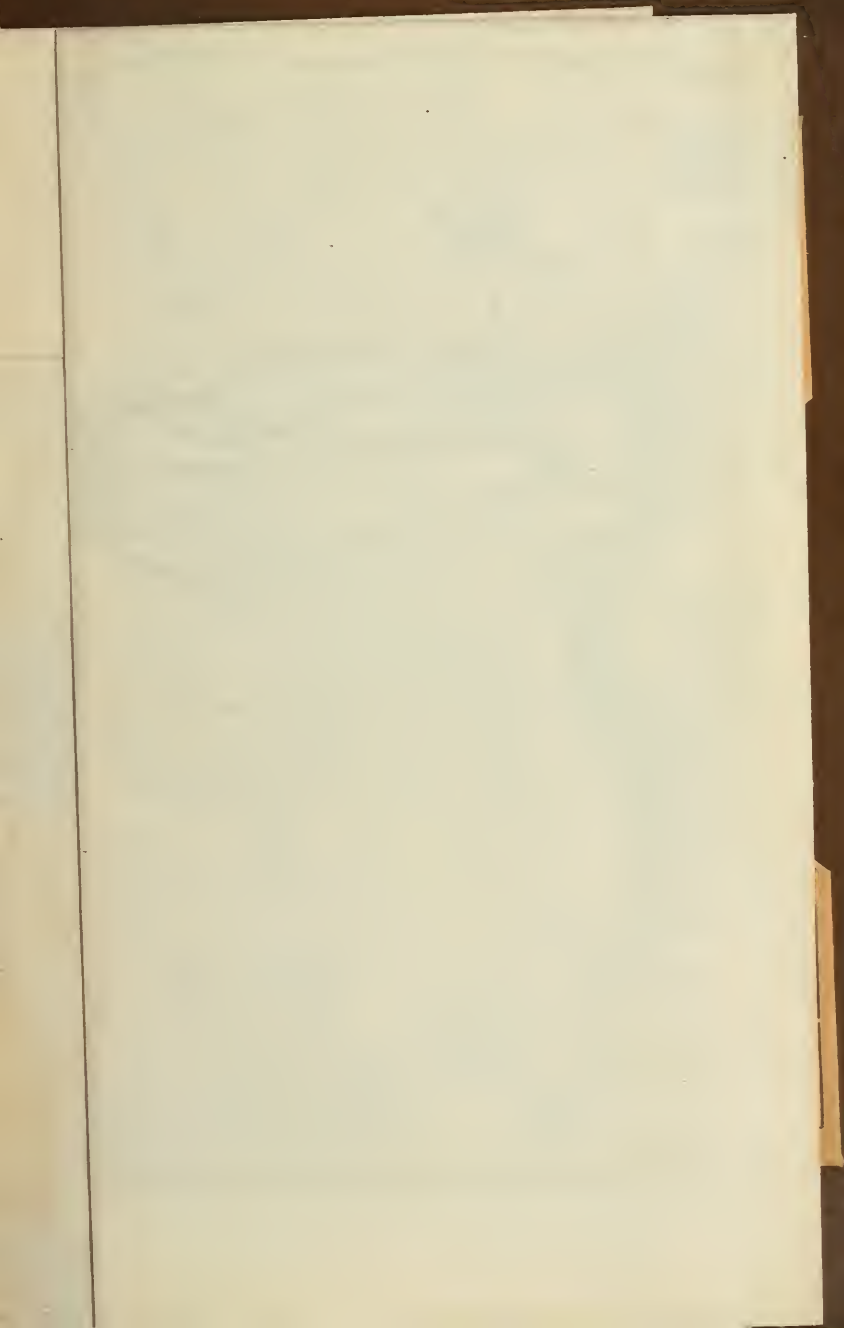

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